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ABSTRACT

The introduction to this annual report traces the history, activities, and growth of the Australian Council for Educational Research (ACER), and notes future challenges facing ACER. Abstracts are presented of seven papers which were delivered at the Invitational Conference on Societal Change held in August 1980 at the University of Melbourne. Reports are given on the progress of six programs continuing under ACER's sponsorship. These programs focus on: (1) learning and teaching; (2) social context of education; (3) measurement and evaluation; (4) library and information services; (5) survey and psychometric services; and (6) advisory services. Information on ACER publications and staff is included. (JD)

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Australian Council for Educational Research

ED219339

fifty-first annual report

80-81

SP 018 961

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DIRECTOR

J.P. Keeves, BSc(Adel.), DipEd(Oxon.), MEd(Melb.), PhD(ANU), Fil dr(Stockholm), FACE, FASSA

Annual Report of the Director

Presented at the Annual Meeting of the Council on Thursday, 10 and Friday, 11 September 1981
This report covers the period 1 July 1980 to 30 June 1981.

INTRODUCTION

Fifty Years of Research and Development

During the opening months of the period under review, the Australian Council for Educational Research marked its foundation, 50 years earlier, in three distinct ways. Following the successful Invitational Seminar on the Improvement of Measurement in Education and Psychology in May 1980, an Invitational Conference on Societal Change and its Impact on Education was held on Thursday, 27 and Friday, 28 August 1980 in the Council Chamber of the University of Melbourne. A detailed account of the Conference is presented later in this report and the proceedings of the Conference were edited by the President of Council, Emeritus Professor P.H. Karmel, with the assistance of Mr P.A. McKenzie, the member of staff who undertook the detailed planning and administration of the Conference. The title of the published volume is *Education, Change and Society* and it is hoped that the papers prepared for the Conference will have a substantial impact on thinking in this country about the problems of youth and the issues associated with the provision of appropriate educational programs in secondary schools and in colleges of technical and further education. The papers which have been included in the report of the Conference will influence educational thought in Australia only if there is further opportunity to debate and discuss the issues raised. The State Institutes of Educational Research have already given some consideration to these issues, and their reflections have been recorded in the published volume. We believe that further work could be undertaken by the State Institutes to develop the ideas presented and to disseminate their views to a wider audience than those who were able to attend the Invitational Conference.

In the late afternoon of Thursday, 16 October 1980, a gathering of Council, former staff, friends, and current staff was held at Radford House to celebrate informally the establishment of the ACER in 1930. At this gathering, Emeritus Professor W.F. Connell passed to Professor Karmel a copy of the history of the ACER, *The Australian Council for Educational Research 1930–80*. Professor Connell wrote the book with the assistance of Mr C.J. Cook, the member of staff who sorted and sifted the archival records of the Council, a necessary step in the preparation of the history. A photograph of this event was included in the *Fiftieth Annual Report*. The Council is grateful to Professor Connell for the work that he did in preparing a detailed and lively account of the activities of the ACER in its first 50 years. One reviewer of the history has noted the absence of a person on the staff of the ACER, during much

of this period, who had training in philosophy and who could question and debate with members of staff the many assumptions that lie beneath educational practice in this country and the research activities of the Council. The need for such a person must be acknowledged but it requires a member of staff who could not only discuss philosophical questions effectively with colleagues, but who could also maintain a high level of productivity in ACER projects. As an alternative to making such an appointment at a time when financial constraints restrict the range of activities in which the Council can engage, it would seem of some profit to promote and foster the publication of writings, by persons outside the ACER, which could at least serve to analyse and discuss the philosophical issues associated with educational policy and practice in this country. A first volume in such a series, *Education for Rational Understanding* by Professor Brian Crittenden of La Trobe University, will be published by the ACER. It would seem desirable that a service to Australian education should be maintained by the preparation and publication of an occasional series directed towards the consideration of such issues in a scholarly manner.

For 50 years the Australian Council for Educational Research has undertaken an active program of creation, diffusion, and utilization of knowledge about educational matters in Australia. Its publications cover a wide range of subjects and are not limited to problems of educational and psychological measurement or to scientific and quantitative research studies, although its concern for a sound factual basis for debate and discussion has frequently led it to contribute through publications that have been derived from such research. The autonomy and independence of its Council leads, we believe, to the undertaking of a program of research that has a balanced perspective and is not exclusively directed towards some issues to the neglect of others of equal importance for Australian education. Furthermore, over the 50 years of its existence, the ACER has been able to acquire step by step its own buildings, which have not been obtained as a result of grants from governmental sources but have come from occasional good years in its trading operations. This ownership of property and the accompanying trading activities provide the ACER Council with a freedom and latitude to pursue a program of research and development that it believes is in the best interests of Australian education without being beholden to a sole provider of financial support. Nevertheless the ACER does receive a Core Grant, to which eight governments now contribute. Without this, it could not carry on its present level of activities and it must, in general, be willing to undertake appropriate research and development activities that are formally requested by those governments and their ministers.

Growth during the Past Decade

Following the conference convened by the Australian Council for Educational Research in May 1967 on 'Research into Education: Improving its Value to the Practice of Education', the then President and Director of the ACER were instrumental in pursuing avenues that would

promote the development of educational research in Australia. Among the initiatives proposed at the conference were the establishment of a central clearing house for information on research done in Australia, an increase in the number of workers engaged in research in education, an increase in opportunities available for training in educational research, and the establishment of new Research and Development Centres or Institutes for Educational Research in each of the States. The members of the conference also sought an increase in the funds made available for fostering collaborative and co-operative research, for the analysis of areas requiring research, and for the calling of conferences on special problems, as well as substantially greater funds for general research and development programs.

Over the decade from 1970 onwards, a quiet revolution has taken place in educational research in this country largely through the establishment of the Australian Advisory Committee for Research and Development in Education that was re-formed into the Education Research and Development Committee in 1975. This body was set up to administer funds provided by the Commonwealth Government, in the main for the purposes outlined above. As a consequence, there has been a substantial upsurge in activity accompanied by the formation of an Australian Association for Research in Education which is a vigorous body with a membership of over 400 and the capability to hold each November a conference of professional educational researchers that regularly attracts 250 to 300 persons. The increase in the amount of research into education has also been reflected in the formation of other educational research groups such as ASERA (Australian Science Education Research Association), MERGA (Mathematics Education Research Group of Australia), and HERDSA (Higher Education Research and Development Society of Australia) as well as in the recent revival of the State Institutes of Educational Research in South Australia and Tasmania, the establishment of a new Institute of Educational Research in the Northern Territory, and possibly the formation of a similar body in the Australian Capital Territory. In addition, the Australian Association for Research in Education has published the *Educational Researcher*, the State Institutes have increased the number and quantity of their publications, and new educational journals have been set up to assist with reporting and disseminating research carried out in Australia.

Another institution that was established in the decade from 1970 to 1980 was the Curriculum Development Centre. The report on the establishment of the CDC which was published in 1980 has indicated that, in the 1960s, of all institutions concerned with curriculum in schools the most significant was the ACER which, through sponsorship of the formation, development, and subsequent expansion of the Junior Secondary Science Project to become the Australian Science Education Project, provided a model for co-operative curriculum development in Australia. Over the seven years of its existence, the CDC has sought to promote debate and discussion on curriculum issues and to provide the

means by which the States could collaborate in the development of curriculum materials.

A Changing Scene for Educational Research

The Ministerial Statement on the Review of Commonwealth Functions which was issued on 30 April 1981 has changed the scene for research and curriculum development in the field of education in Australia. The present indications are that the Education Research and Development Committee will be terminated from the end of 1981 and the activities it has supported will be phased out. In addition, it is probable that the Curriculum Development Centre will be abolished after a brief period necessary for the winding down of its operations. Furthermore, some of the information collection and provision of statistics on education by the Commonwealth Schools Commission which were beginning to serve a valuable purpose will be scaled down significantly.

The ACER derives a little more than 40 per cent of the funds for its research and development programs through the Core Grant that it receives from the Commonwealth and State Governments. The remainder of its expenditure on these activities is derived from research contracts, the provision of psychological and educational testing services, and the trading of the ACER's own publications and the publications for which the ACER is the agent. It must be recognized that the termination of the Education Research and Development Committee and the abolition of the Curriculum Development Centre will reduce the sources of support to which the ACER formerly had access for the obtaining of research grants. However, there is a more important consequence of the termination of direct Commonwealth involvement in research and development in education. Since the ACER is the only national independent educational research and development organization remaining in Australia, it will once again need to accept greater responsibility in a field that has over the past decade become accustomed to receiving increased service, unless new instrumentalities arise within the States. There is some indication that such bodies will be formed to serve specific functions. For example, a TAFE National Centre for Research and Development is being set up in South Australia, which will be supported by the Australian Education Council; the Commonwealth has established both an Institute of Multicultural Affairs and an Institute of Family Studies in Melbourne; and the Western Australian Government, in a joint venture with the University of Western Australia, has set up a National Centre for Research on Rural Education in Perth. It is important that such centres for research and development activities in education should be established around Australia. Nevertheless, it is also important to recognize that a significant impact on educational thought and practice comes not from a short-term program of activity but rather from a sustained but lively program which is maintained over a longer period.

At the same time as new bodies are being formed to undertake research and development programs in educational areas, the bodies that

have traditionally engaged in work in this field are being forced to scale down their activities and in some cases to terminate their involvement in research and development. As universities and colleges of advanced education have found their funding severely restricted, they have commonly been forced to reduce their commitment to this work and in some instances to close their educational research units. As the State Departments have experienced rising costs and reduced budgets, they have successively decreased their engagement in research and development activities. The ACER, too, has had to reduce significantly its research program over the past two years. Whereas at the end of 1979 we had 50 professional staff employed or seconded to work at the ACER, at the end of 1981 we will have only 40 professional staff working in our offices. This reduction of 20 per cent in our staff engaged in research and development will inevitably reduce the volume of work that we are able to undertake.

The challenge to the Australian Council for Educational Research is to take account of these changing circumstances and to continue as its Council thinks fit, within the limits of resources available, to serve best the needs of Australian education.

INVITATIONAL CONFERENCE ON SOCIETAL CHANGE AND ITS IMPACT ON EDUCATION

A major invitational conference on the relationship between societal change and education, held on Thursday, 28 and Friday, 29 August 1980 at the University of Melbourne, was planned to help mark the 50th anniversary of the founding of the ACER

The 95 conference participants represented a broad cross-section of Australian educators, employers, trade unionists, and media personnel. The participants came from every Australian State and Territory as well as New Zealand. In addition, four distinguished overseas scholars, Professor A.H. Halsey, Professor Torsten Husén, Dr Henry Levin, and Dr Ernest Boyer attended and presented major papers.

Purpose of the Conference

The conference was designed to focus attention on the interaction between economic, demographic, political, and societal change and the education system. In common with much of the rest of the world, Australia is experiencing a period of rapid change. Technological developments, demographic shifts, modified social relationships, and an uncertain economic future are some of the components of this change. In any period, the traditional roles of major social institutions come into question, and education is not immune from such a re-examination.

The process of examining the interaction between education and change in the wider society can be viewed as comprising four interrelated stages: a consideration of the traditional role of education in society; an identification of the types of changes which society is likely to experience; an examination of the likely impact of social change upon education; and a reconsideration of the appropriate form and function of education in a changing society.

It was hoped that, if the conference could encourage the rigorous analysis of each of these stages, the task of preparing Australian education for the coming decades would be facilitated. In this analysis, it was considered important that international experience and perspectives be brought to bear on the issues of concern.

Organization of the Conference

Because of the broad nature of the issues to be examined, it was considered essential that the areas of debate be identified well in advance of the two days of the conference itself. To achieve this objective, background papers were commissioned from four prominent Australian scholars. These papers were designed to illuminate the four stages of inquiry outlined above.

Professor Brian Crittenden, Professor of Education at La Trobe University, prepared a paper entitled 'Theoretical Assumptions in the Recent Development of Australian Education'. This paper, which was

written from a historical and philosophical perspective, discussed changes in the main objectives and assumptions of education in Australia since about 1950 and critically assessed the ones that are most useful in current practice.

Two of the papers outlined and analysed various changes in Australia in the recent past and attempted to predict the likely course and rate of change over the next few decades. Professor Don Aitkin, Professor of Political Science at the Australian National University, examined the political and sociological dimensions of change in a paper entitled 'Australian Society in Change: A Sociological and Political Perspective'. Professor Sir Bruce Williams, Vice-Chancellor of the University of Sydney, in his paper 'Australian Society in Change: An Economic and Demographic Perspective' outlined the economic and demographic factors which influence the proportion of the nation's resources which is allocated to the education sector, and considered a number of likely changes in the relative strength of these factors.

The fourth paper, 'Changing Educational Emphases for the 1980s', attempted to draw together the issues raised by the other three background papers. Mrs Jean Blackburn, a former full-time member of the Schools Commission, considered the impact of societal change upon the functions of Australian education and discussed some of the modifications of the form and content of education which may be necessary as a result of these changes.

To promote discussion and debate, the four papers were circulated to conference participants several months before the conference, and six individuals representing a wide range of interests were invited to prepare statements of reaction which were also circulated. The reactants were: Mr R.G. Fry, Director, Metal Trades Industry Association of Australia; Dr D.A. Jecks, Principal, Churchlands College; Mrs J.E. Kirner, Executive Officer, Victorian Federation of State Schools Parents Clubs; Mr P.W. Matthews, Director of Studies, Trade Union Training Authority; Dr B.W. Scott, Managing Director, W.D. Scott and Company, Sydney; and Mr J.R. Steinle, Director-General of Education, South Australia.

As a further stimulus to debate, the State Institutes of Educational Research established working parties to examine issues raised by the background papers and reactant statements. Their reports were made available to participants at the time of the conference.

The pre-conference activities were designed to enable participants to bring with them a common set of data on various aspects of change in Australian society and a common understanding of the issues involved in considering the implications of change for Australian education. At the conference itself, these issues were placed in an international perspective through the papers presented by the four overseas authors. The implications of societal change for two important aspects of educational endeavour—educational research and the design of curricula—were discussed by Dr John Keeves and Dr Malcolm Skilbeck respectively. Emeritus Professor Peter Karmel, who chaired the

proceedings, closed the conference with an overview of the issues raised by the pre-conference activities and at the conference itself. A summary of each of the papers presented at the conference is given below.

Paper 1 Social Influences on Education: The British Case
Author Professor A.H. Halsey (Director of the Department of Social and Administrative Studies, Oxford University, England)

In a wide-ranging paper, Halsey was concerned with exploring two broad related themes—the dependence of changes in the education system upon social changes characterized by increasing complexity in the division of labour, and the impact of the expansion of educational opportunity upon social equality. He developed the first theme by arguing that there is an evolutionary trend towards an increasing complexity in the division of labour and that this trend shows no sign of abating. He illustrated the impact of provision which has evolved in Europe since the Middle Ages in response to changing economic conditions over the period.

At the present time, three economic developments have particular relevance for the education system. First, it is increasingly probable that, in the future, all who wish to obtain full-time employment will not be able to do so: the relation between work, education, and leisure as understood historically is open to fundamental change. Under such conditions the challenge for the education system is to 'democratize idleness'; the provision of recurrent or continuing education is one early response to these conditions. Secondly, there is evidence of the growth in relative size of the informal economy; that is, those economic activities whose outcomes for a number of reasons are not reflected in the official national accounts of the economy. Combined with general pessimism about the value of increased expenditure on education, the development of the informal economy at the expense of the formal economy (out of whose transactions the funds for education are distributed) means that the relative proportion of society's resources going to the education system may decline. The third economic development is the lowering of the price of capital goods relative to labour. This development may have considerable effect upon the types of pedagogical techniques employed by schools.

Halsey's second theme on the relation between the expansion of educational opportunity and social equality commenced with an outline of the historical factors which originally gave rise to the notion that expansion of educational opportunity would lead to greater social equality. Research in the United States over the past decade has cast doubt on the ability of educational expansion to promote social equality. On the basis of an extensive research study with which he had been involved in Britain, Halsey essentially confirmed this pessimism. Results, while disappointing to educators, are not wholly surprising since the opportunities for educational participation are unequally distributed among social classes in the first place. He argued that it is useful to view

education as a 'positional' good; under this formulation competition for jobs is determined by one's position in the education queue rather than one's absolute level of educational attainment. Accordingly, because of the inequality of access to educational opportunities, social equality is an ever-receding target.

Despite these reservations, Halsey concluded his paper on a more optimistic note. One cannot be pessimistic about the prospects for social equality in a future in which the division of labour is likely to be fundamentally reconstructed. Under such conditions, the appropriate task for educators as for the rest of society is to decide upon the future that is desired and to devise strategies and policies that will facilitate the transition from the present to that future.

Paper 2 The Future of Institutionalized Schooling
Author Professor Torsten Husén (Director, Institute of International Education, University of Stockholm, Sweden)

Husén commenced by examining the changed auspices under which the education system is now operating. The sixties, characterized by rapid economic growth, rapidly expanding enrolments, and a belief that education could promote social equality and harmony, were the golden years of education. Since about 1970, the conditions under which education operates have changed considerably. Economic growth has slowed markedly, enrolments have declined in a number of sectors, and misgivings have developed about the value of education. These factors have culminated in the 'institutional malaise', which is affecting secondary schools in particular, and have led to the school coming under criticism from most points of the political spectrum.

Husén argued that a major factor contributing to the difficulties of the education system is the role that the school is expected to play in sifting and sorting students for employment. This factor has adversely affected the climate of schools: students compete for the external rewards of marks because of the influence of school success upon subsequent entrance to tertiary education and employment. Even students who are greatly dissatisfied with school often remain in the system because of the links they perceive between education and job success. However, because of the slow-down in economic activity and the greater numbers of those with high levels of education, these expectations are not always realized and this has the effect of further intensifying competition at the school level. A largely vocational system easily tends to corrupt genuine educational values; the overall task for education is not simply to prepare people for employment, but to provide them with the competency they need in order to become well-rounded, reasonably satisfied, and participating citizens in a democratic society, a society which should provide its citizens with options not least in the field of work.

To reshape the school for the future, a major precondition would be to try to dissolve the connection between the educational and employment systems, whereby the former is the sorting mechanism for the latter.

Policies which encouraged less emphasis on formal education in assessing employment qualifications would assist to weaken the nexus between education and employment.

Concerning the school itself Husén argued that, for the school to be reshaped into a better and more humane institution for achieving genuinely educational goals, it is necessary to give consideration to what characterizes the educative process. At the core of this process is the interaction between the teacher and the student whereby, through stable personal and emotional relationships, the teacher can provide the student with adequate and meaningful learning opportunities. In this context, Husén contended that reconsideration be given to the appropriate size of school units, since it is probable that in smaller schools a more responsible and interactive role can be developed for students. The main task of institutional arrangements is to establish a system whereby every student has a teacher to whom he can particularly relate, and such arrangements are not likely to be present in large highly fragmented schools.

Finally Husén considered the appropriate role of educational research in the future. Greater research efforts need to be devoted to identifying the factors contributing to the 'institutional malaise' from which the secondary school in particular is suffering. Futurological studies pertaining to reshaping the school so as to make it better able to meet the needs of the post-industrial society have to be undertaken.

Paper 3 Youth Unemployment and Education
Author Dr H.M. Levin (Institute for Research on Educational Finance and Government, Stanford University, USA)

Levin compared youth and adult unemployment rates in the United States and Australia over the past two decades. While the United States has had a persistent youth unemployment problem, high levels of youth unemployment have only become apparent in Australia since about 1974, and the sharp rise in youth unemployment since that time has coincided with a rapid growth in the level of aggregate unemployment. This factor needed to be borne in mind when considering the various explanations advanced for youth unemployment in Australia.

Alternative theories about youth unemployment were now being debated because youth unemployment had become a matter of major public concern. Levin identified three dimensions of this concern, namely the problems associated with the potentially anti-social behaviour of an unemployed youth culture, the debilitating long-run effects on individuals of sustained periods of unemployment during adolescence, and the fact that the general problem of youth unemployment seems to be persisting.

Four major explanations of high levels of youth unemployment were outlined—the demographic, the minimum wage, the shortage of skills, and the aggregate economic conditions theories. While some evidence

could be obtained to support each explanation, the strongest evidence supported the argument that, in Australia at least, the downturn in economic activity since the mid-seventies was the major contributing factor to high levels of youth unemployment. In depressed labour markets, it is young people, and in particular those young people from disadvantaged regions and/or disadvantaged home backgrounds, who are the most rapidly affected by adverse changes in the aggregate economy.

Before examining policies which may help to overcome some of the problems of youth unemployment, Levin emphasized that it is important to distinguish between policies which may help particular individuals to gain employment and policies which lift aggregate employment. Without an increase in overall employment, the gaining of employment by a particular individual or group of individuals may simply be at the expense of the employment of others. While such policies may share the available employment more fairly, this is not necessarily guaranteed and accordingly the displacement effects of such policies need to be carefully considered.

Levin was pessimistic about the current efficacy of conventional monetary, fiscal, and external sector policies in raising aggregate employment without raising inflation levels. Rather attention should be directed at more specific job creation programs. In particular, small-scale enterprises have a better chance of providing employment opportunities, fostering a satisfactory work environment, and fulfilling social needs than do large enterprises. He illustrated this argument by reference to the relative economic success of small farms, small businesses, and youth producer co-operatives in satisfying formerly unfilled social demands. Accordingly government policy should be redirected towards facilitating the capacity of small enterprises to raise capital, and the funds that would otherwise be used as redundancy payments for displaced workers could be one source of such capital.

Levin concluded his paper with the observation that, since the contention that the education sector was responsible for youth unemployment was not well supported by the available evidence, the education sector should not make promises to undertake reforms to solve the problem of youth unemployment. Such policies should only be undertaken if they are worthwhile in themselves.

Paper 4 Education for a Complete Life
Author Dr E.L. Boyer (President, Carnegie Foundation for the Advancement of Teaching, Washington, USA)

In approaching this broad topic, Boyer argued that consideration of the type of education necessary for a complete life necessitates an examination of the values and objectives of education. The goals held for education at any one time inextricably reflect contemporary thought about the purposes of life itself. Therefore, in order to determine the role

of education in facilitating a complete life, one should attempt to identify values and issues which are likely to be consolidated or emerge over the next few decades and which will influence perceptions of the needs of individuals. Dr Boyer identified four major groups of likely developments.

First, because of rising expectations, the demand for education will continue to escalate despite current pessimism about the value of education. Much of this pessimism was ill-founded and there was a great deal of evidence to support the view that expansion of educational opportunities had facilitated social mobility and encouraged moves towards greater equality. Boyer warned against confusing equality of access with uniformity of educational program. Education for a complete life will require not only a great expansion of educational opportunity but also a greater diversity of educational provision in order to meet the varied needs of individuals.

The second major trend concerned the changing life styles of individuals and the concomitant changes in their educational needs. In this regard, he cited evidence demonstrating a decline in working hours, lowering of the retirement age, the growth in part-time enrolments, and the greater flexibility with which people now sequenced their education, work, and leisure. These developments indicate that education for a complete life requires the provision of educational opportunities over the complete life-cycle of the individual. Acceptance of the view that education is a lifetime process has strong implications for the nature of pre-adult education.

Thirdly, Boyer described the growth of technology and, in particular, communications technology, and discussed some of the implications of this growth for the educative process. Language is the centrepiece of education and of life itself; and our understanding of the way messages are sent and received will, in the future, determine our civilization and perhaps survival. Technology greatly opens up the opportunity for learning outside the classroom, and this non-traditional education must be more closely integrated with the traditional educative process before education for a complete life can be achieved.

The final group of developments concerned the substance of the educative process. He predicted that the definition of the core curriculum will change in that the curriculum will move beyond the traditional academic subjects and will try to achieve a central integrating purpose for education. Such a central integrating purpose would be to help all students to see themselves in relation to other people, other times, and other places. Although we live in a world in which all sections are inextricably linked to each other, current curricula do not always reveal these connections. While people are non-uniform, they do have a common heritage, a common contemporary agenda, and a common future. Boyer concluded that education for a complete life requires a curriculum which is structured to allow the study of the common need for language, our common heritage, common social institutions, common activities, and common prospects for the future.

Paper 5 The Implications of Societal Change for Educational Research
Author Dr J.P. Keeves (Director, Australian Council for Educational Research)

Keeves reviewed developments in educational research in Australia and overseas. In Australia, the consolidation of the ACER as an independent educational research organization, the establishment of the Education Research and Development Committee, and the development of a vigorous association of research workers have assisted the greater co-ordination of educational research effort and have facilitated an impressive accumulation of significant educational research findings. However, much of the educational research effort is in urgent need of consolidation into a coherent body of knowledge. The recent development of new techniques to review and consolidate research findings offers promise in this regard but more needs to be done to achieve coherence.

There are three major forces which will influence the direction of research in education. First, new paradigms for educational research will evolve from the cross-fertilization of the wide range of social and behavioural sciences engaged in the educational research endeavour. Keeves drew attention to the danger that research workers from different disciplines may become isolated from the mainstream of educational thinking by preferring to work within their own disciplinary setting. The second major factor is the emergence of critical issues which demand the efforts of researchers. As an illustration of this, the immediate concern of youth unemployment is part of a wider problem of the transition of youth from dependence to a constructive role in adult society. This issue involves a major problem lying within the field of educational research. Finally the development of high-speed computational facilities over the past decade has enabled the employment of sophisticated statistical and analytical techniques in research. Such developments have shifted the thrust of educational research towards the study of multivariate relationships. However, the advancement of knowledge requires more than the availability of sophisticated computational facilities and analytical techniques: in the long term, it will be the development of explicit and well argued theory for examination with empirical data that will lead to advances.

On the basis of the major problems facing Australian society as identified by the conference background papers and from an examination of the areas where gains are likely to be made because of the interplay of the three factors discussed above, Keeves presented for debate a sequence of areas in which he believed educational research should be actively pursued in the future:

1 the development of an effective scale for the measurement and comparison of student performance;
2 the development of a coherent understanding of the factors which influence school learning;
3 the development of procedures for the mapping of the school curriculum;

4 studies of the cost-effectiveness of different educational programs and services;
5 studies in the transition from school to a constructive adult life including the interplay of leisure, work, and education in individual development;
6 the educational environment of the home;
7 the thought processes of children.

Keeves concluded that, without an understanding of the problems which exist in these areas and without evidence arising from research, there is little available upon which to base future programs and policies.

Paper 6 The Implications of Societal Change for the Curriculum
Author Dr M. Skilbeck (Director, Curriculum Development Centre, Australia)

Skilbeck noted that the concept of curriculum has broadened over time from syllabus to experience. Accordingly curriculum change is a broader process than the changing of books and instructional materials: it is a form of social change both within the school and in terms of its impact on society. In this context, Dr Skilbeck argued that the title of the conference seemed to imply a one-way flow between societal change and education and that the possibility of social change in response to educational change also needs to be considered.

Skilbeck identified a number of changes in Australian society which are likely to interact with the curriculum. These included the increasingly multicultural nature of society, a growing demand for community participation in decision making, technological change, shifts in the job market, the geo-political position of Australia, and the moves away from absolutism and towards pluralism in knowledge and values.

The secondary school has become a mass universal institution and as such the current culture of the secondary school, which is in general a diluted version of an academic culture, is no longer appropriate; it is by addressing the question of the secondary school curriculum that it is possible to get to the heart of the societal change and curriculum issue. The curriculum should be viewed as a social-cultural map. Under this view, the school curriculum is a means of sustaining, modifying, and recreating the world to which it addresses itself in both a personal and a social sense. In addition, the curriculum can be viewed as providing some of the tools, skills, and values which enable students to engage actively in the social world.

Some of the elements in the curriculum map would be:
1 the development of personal, group, national, and international identity;
2 an acknowledgment of the reality of change;
3 an acknowledgment of the openness of truth, values, and beliefs;
4 the means by which individuals can manage, guide, and direct the social order;
5 knowledge of the opportunities for growth in work, leisure, and relationships.

The conventional model of curriculum change is that it is viewed as a product of broad educational policy decisions which have been derived from broad social policy which, in turn, has been derived from broad political processes. Under this model, the curriculum is a reflection of social reality, a product from the past; and the curriculum designer is essentially a social technician. This model was condemned to failure by social lag and Skilbeck contrasted this model of curriculum design with the view of curriculum as a social-cultural mapping in which the curriculum designer interacts with other groups and individuals. The mapping process requires: (a) social knowledge and understanding; (b) constructs and theories about the social-cultural world; (c) an analysis of alternative futures.

If the map-making approach is to have effect, it is necessary to think of teachers as designers and engineers of curricula rather than as the translators of curriculum designed elsewhere.

Dr Skilbeck placed his earlier comments into the context of the development and content of the recent Curriculum Development Centre publication, *A Core Curriculum for Australian Schools.*

Paper 7 Societal Change and its Impact on Education: A Conference Summation

Author Professor P.H. Karmel (Chairman, Commonwealth Tertiary Education Commission, Australia)

Karmel outlined likely developments over the next 20 years in demography, the labour market, technological change, and the growth of a public acceptance of pluralism in values. The implication of these changes for the education sector is that enrolments are unlikely to grow at the relatively rapid rate of the past two decades, public expenditure on education is likely to be restrained, and the requirements for accountability by educational institutions and for relevance in courses are likely to continue. If educational institutions are to offer courses relevant to a socially complex and technologically sophisticated world, they must be prepared to range very widely in their activities and to function in many roles.

Despite the difficulties of gaining consensus on the goals of education and the relative weights to be attached to these goals, it can be stated that (a) education in the formal sector has the characteristics of preparing individuals for human activity, of which work is only one aspect, and of being a life experience in itself; and (b) educational institutions and processes reflect the relations within society, and society itself is moderated by the nature of education.

On the basis of the background and conference papers, Karmel set out a number of practical prescriptions which may be implemented as a contribution to various social problems.

1 Within the years of compulsory education, proper attention should be directed towards basic language skills in the broadest sense of the whole notion of communication.

2 The compulsory curriculum should include a study of work as a major human activity.
3 The development of comprehensive two-year educational institutions for the post-compulsory school years should be considered.
4 The present apprenticeship system should be supplemented with other forms of training for young people.
5 Employers should maintain a balanced workforce with an appropriate proportion of training positions for young people.
6 The financial allowances for young people in various educational, training, and employment activities need to be rationalized to provide appropriate incentives for the undertaking of meaningful activities.
7 It is desirable to encourage the promotion of recurrent education so that people are able to move in and out of education throughout their lifetimes.

Karmel stated that the practical prescriptions he had outlined do not provide a solution for all social and economic problems. However they are feasible suggestions which lead in the direction of fairer treatment for disadvantaged groups as well as raising the competence of individuals in undertaking human activities. The prescriptions may threaten some vested interests and they will certainly cost money. The high hopes once held for education have been replaced in some quarters by despair. However, over the past 20 years in Australia, there have been many significant improvements in the quality of Australian education at all levels. If as much can be achieved in the next 20 years, a great deal of progress will have been made, even though the future is likely to be one in which social conflict rather than economic growth predominates.

PROGRAM IN LEARNING AND TEACHING

Advisory Committee

Mr A. Webster (Chairman), Mr M.J. Angus, Professor W.J. Campbell, Mr J. Mitchell, Dr P. Tillett, Professor R.P. Tisher, Mr S.F. Bourke, Dr M.J. Rosier, The Director (The Committee met once during the year.)

Overview

The activities of this Division have been significantly curtailed during the period under review as a result of the financial constraints operating on the Council's program of research and development. As a consequence several projects have been temporarily halted as staff have left to take other positions. Efforts are, however, being made to revive projects after a period in abeyance so that the acknowledged thrust of the program of the Division does not suffer unduly.

The most significant study within the Division during the past 12 months has been the Australian Studies in Student Performance which has sought to examine progress in learning tasks of literacy and numeracy in Australian schools over the period 1975 to 1980. The study was conducted under a cloud of intense opposition led by some of the teacher unions and some state school parents organizations, and with the opposition strongly endorsed by such bodies as the Curriculum Development Centre. Nevertheless it is to the credit of the ACER staff that in spite of this opposition a satisfactory level of response was forthcoming and data that were basically sound were obtained. Indeed the overall level of response to this Australian study was in excess of that being obtained for some similar overseas studies which have not been confronted with organized opposition. The maximum estimated bias which has arisen as a result of the lack of support for the study is believed not to exceed one per cent of proportions responding correctly to test items and is substantially less than the estimated sampling errors.

The report of the study has wisely not considered in detail the educational significance of the evidence presented. However, it would appear from the gains recorded that, over the five-year period from 1975 to 1980, progress has been made in the teaching of the basic skills of literacy and numeracy in Australian schools. While it is not possible to produce documentary evidence of the changes in teaching practices that have occurred in the period between 1975 and 1980, there is ample hearsay evidence that schools and teachers in Australia have taken seriously the public concern for the level of performance of students in the areas of literacy and numeracy and have sought through their teaching to raise that level. Without such assumptions about changes in teaching practices, it would be difficult to account for the substantial increase in level of performance on such tasks as newspaper reading. Furthermore, it is known that school texts that have emphasized the development of these skills have found a ready market. Likewise, an

examination of changes in the programs of teacher education institutions indicate that in recent years there has been a renewed emphasis in preparation for teaching in the areas of literacy and numeracy. The overall view of the research staff working on this study is that, in the main, there was great concern and strong support, among the rank-and-file teachers and parents of students currently in Australian schools, for a study that sought to investigate progress in literacy and numeracy in 1980.

At the time of writing the future of a continuing program is in doubt; testing will not now take place in 1981. Nevertheless it is of some consequence to note that recent parliamentary committees of inquiry have continued to emphasize the need for such a monitoring program. Both the report of the Senate Standing Committee on Education and the Arts, *Preparation for the Workforce*, and the report of the Committee of Inquiry into Technological Change in Australia have made firm recommendations in this area. Furthermore, they would appear to base their support for a monitoring program on a need for students to learn these skills if they are to become effective members of Australian society, and on a need for schools to provide appropriate instruction to promote the development of these skills.

Over the past 15 years the Australian Council for Educational Research has profited greatly from its contacts with the network of overseas educational research workers who have collaborated to carry out co-operative research programs under the auspices of the International Association for the Evaluation of Educational Achievement. The time has come for the ACER to provide leadership in this area and Dr M.J. Rosier has undertaken the responsibility of co-ordinating work for the Second IEA Science Study. Some financial support has been forthcoming for the financial year 1981–82 from overseas sources to provide for the international components of the program. Nevertheless, if the full program of international research and training is to remain viable, further support will have to be obtained from overseas sources.

The ACER is also planning to participate in the IEA Classroom Environment: Teaching for Learning Study and, if the costs and work load are not too heavy, in the IEA Study of Written Composition. The reservations that were held about participation in both these studies have cleared as more detailed plans for the conduct of the studies have been developed. The ACER, in general, has staff with relatively limited experience for work in this complex area where a considerable body of research has been accumulated overseas in recent years. The opportunity provided by IEA for collaboration in research is one of the ways in which it is possible to strengthen the skills and expertise of staff in minimal time and at relatively little cost. These links with overseas colleagues become increasingly rewarding as IEA moves to undertake activities that extend beyond its traditional field of endeavour associated with the assessment of student achievement through survey research methods.

NATIONAL STUDIES OF EDUCATIONAL OUTCOMES

Second IEA Science Study

Malcolm J. Rosier, Douglas T. Couper

(This project was included in the ACER Core Program. Mr Couper was seconded from the Victorian Education Department.)

Many countries around the world are expressing grave concern about the quantity and quality of mathematics and science education in primary and secondary schools in the context of the growing needs of the countries for competent workers in the scientific and technological areas that are seen to be crucial for their national development. In response to this concern, the International Association for the Evaluation of Educational Achievement (IEA), at the meeting of its General Assembly in August 1980 in Finland, decided to commence the Second IEA Science Study. The study will build on the experience gained during the first project which was conducted in the early 1970s. It follows that the second study should collect data to enable the changes in curriculum and achievement in science from the early 1970s to the early 1980s to be described.

The IEA decided that the International Centre for the study should be located at the ACER, that Dr John Keeves should be Chairman of the International Project Council responsible for the general policy and funding of the study, and that Dr Malcolm Rosier should be the International Co-ordinator responsible for the organization of the study.

The aims of the study are to measure the current state of school science education across the world, to examine changes in science education since the first study, to investigate curricular and other factors which explain differences in the outcomes of science programs, and to assist the participating countries to conduct associated national studies of science education.

It is anticipated that many developing countries will participate in the study. In consequence, a strong emphasis will be placed on a variety of training activities designed to enhance the capacity of national centres and research workers to undertake large-scale survey research studies.

During the past year the main activities of the study have been the preparation of two basic planning documents, and the contact with a range of countries concerning participation in the study. The two major documents have been a set of guidelines describing the conduct of the study and the overall schedule of activities, and a draft plan for the analysis of science curricula across the world. The first issue of the newsletter giving information about the progress of the study was prepared and distributed.

Analysis of Chemistry Curricula in Australia

An important component of the initial work on the Second IEA Science

Study was the analysis of chemistry curricula in Australia, undertaken by Mr Douglas Couper. Any analysis of changes in science education across time must take account of the way in which the curricula have changed. The analysis of changes in curricula requires an examination of the nature of the topics in the curricula and the emphasis given to them, while also paying attention to changes in the participation rates of students in science courses. Mr Couper developed a detailed scheme for the analysis of chemistry courses at the Year 12 level in Australia, and he applied the scheme to the courses in each of the Australian States. This involved the examination of published syllabus statements from 1970 to 1980, and of associated examination papers. It would appear to be important for use to be made of this methodology for the detailed analysis of science curricula in other areas, especially in physics and biology.

Publications and Papers

Couper, D.T. The Analysis of Science Curricula. Paper presented at CONASTA Conference, Canberra, September 1980.

Keeves, J.P. and Rosier, M.J. Guidelines for the Second IEA Science Study. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Second IEA Mathematics Study

Malcolm Rosier

(This project was included in the ACER Core Program.)

The final report of the Second IEA Mathematics Study in Australia, as described in last year's ACER Annual Report, was published in October 1980. A computer tape containing the 1964 and 1978 data sets and the associated technical documentation have been lodged with the Australian Consortium for Social and Political Research Incorporated (ACSPRI) at the Survey Research Centre, Australian National University, Canberra. Later in 1981 it may be lodged with the Inter-university Consortium for Political and Social Research (ICPSR) at the Survey Research Centre, Ann Arbor, Michigan, USA.

Publications and Papers

Rosier, M.J. Standards in Mathematics in Australian Secondary Schools. Paper presented at ANZAAS Congress, Brisbane, May 1981.

Rosier, M.J. The Second IEA Mathematics Study in Australia. In H.G. Steiner (Ed.), *Comparative Studies of Mathematics Curricula: Change and Stability 1960–1980*. Bielefeld, Federal Republic of Germany: Institut für Didaktik der Mathematik, 1980, 230–8.

Australian Studies in Student Performance

Sidney F. Bourke, John M. Mills, Warren B. Jones, Jackie Stanyon, Faye Holzer

(This project was funded by the Australian Education Council (AEC). Ms Stanyon was seconded from the Victorian Education Department.)

Details of the purposes of this project and the development of criterion-referenced tests in reading, writing, and numeration were given in the 1979–80 Annual Report. The tests were administered in October 1980 to 5473 10-year-old students and 5103 14-year-old students (these figures represent 78 per cent and 73 per cent of the designed samples, respectively). The 476 participating schools were offered a copy of their own results; almost all of the schools accepted the offer and results were despatched promptly. A major report, detailing national performance on individual items and sub-tests and by sex and school location, has been presented to the AEC. A brief summary report, intended for participating schools and for interested members of the public, has also been prepared.

Performance on the reading tests followed a similar pattern in both age groups. The simplest reading tasks gained a near-perfect response from all students but smaller proportions of students were successful in prose comprehension and on reading tasks concerned with comprehending a newspaper and extracting information from it. However, over two-thirds of students in both samples successfully completed every reading task.

The writing tests included two separate objectives. Some items assessed writing demands made by family, school, or community; these assessments were made according to specific criteria, in line with the overall criterion referenced approach of the study. Other items, which assessed the expression of personal feelings, ideas, and experience, were not amenable to this method of scoring: global scoring was used in these cases. Nine-tenths of students in both age groups were successful in writing an effective personal message. Performance on writing a letter for information was high for 14-year-old students but low for 10-year-old students. It was found that, in the globally-scored tasks, both 10-year-old and 14-year-old students wrote the most words in telling a story. Ten-year-old students made the fewest spelling errors in writing a report and 14-year-old students had the highest spelling error rate in expressing opinions.

In the numeration tests, very high proportions of students at both age levels were successful on tasks involving the operation of addition. Approximately seven out of ten of the 10-year-old students were successful in all the numeration sub-tests, as were eight out of ten 14-year-old students. The former students performed least well on

computation tasks; fractions and decimals were handled least well by the latter. It is worthy of note that 10-year-old students had relative difficulty with telling the time, working with time, and computing using the four arithmetic operations.

Comparisons were made between the performances of male and female students. At the 10-year-old level, female students generally performed better than males in all three tests. This superiority was repeated, but with less consistency, at the 14-year-old level.

Performance by school location was also investigated. No significant differences were found for reading. Small differences favouring 10-year-old metropolitan students were found in the numeration test results. The only significant difference found in the writing test results was that 10-year-old non-metropolitan students performed better than their metropolitan counterparts on taking a telephone message.

A number of items in the 1980 tests were similar to those used in the Australian Studies in School Performance project (1975). Other items were common and provided an opportunity to compare performance over time. In reading, performance on common items, at both age levels, was almost identical for both test administrations. However, it is of interest that the prose comprehension of 14-year-old students appeared to have improved and the newspaper reading skills of 10-year-old students showed a marked improvement. In the 10-year-old writing tests, a personal message was better done than in 1975 and results on common sub-tasks in writing a letter for information (writing a greeting and a final signature) showed an improvement in 1980. Comparisons in performance on the writing tests at the 14-year-old level showed no significant difference between 1975 and 1980. The numeration tests afforded two bases for comparison. First, there was an improved performance at both age levels on eight basic items concerned with the four operations. Second, there were 13 items more generally representative of the numeration tests: 10-year-old students did not perform at a significantly different level from that of 1975, but the performance of the 14-year-old students was significantly higher in 1980.

The AEC will take a decision in October 1981 about the continuation of the testing program.

Publications

Bourke, S.F. Australian Studies in Student Performance: Development of the Numeration Tests. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Bourke, S.F., Mills, J.M., Stanyon, J., and Holzer, F. *Performance in Literacy and Numeracy, 1980.* Canberra: Australian Government Printer (in press).

Mills, J.M. and Holzer, F. Australian Studies in Student Performance: Development of the Reading Tests. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Stanyon, Jackie. Australian Studies in Student Performance: Development of the Writing Tests. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Social Indicators of Educational Achievement

Kenneth N. Ross

(This project was included in the ACER Core Program.)

In this study several indicators of school mean achievement were prepared and then validated. The indicators were based on census descriptions of the characteristics of school communities, while the achievement measures were concerned with tests of basic skills in literacy and numeracy which had been gathered from national samples of Australian 10-year-old and 14-year-old students.

An important finding in this study was that the correlations between census-based indicators and school mean-achievement scores were comparable with, and sometimes greater than, correlations previously obtained for indicators which had been constructed from detailed and personal home-background information obtained from individual students.

The performance of these census-based indicators as predictors of school mean achievement was dependent upon residential patterns associated with school communities. The nature of these residential patterns was examined with respect to current 'social geography' theories which have suggested that the basic dimensions of residential differentiation are concerned with socioeconomic, family, and ethnic descriptions of human populations.

STUDIES OF THE EDUCATION OF SPECIAL GROUPS

Learning Thresholds and the Retention of Literacy Skills

Sidney F. Bourke

(This project was included in the ACER Core Program.)

This project has involved following up some 850 students who, as 10-year-olds, were in the sample of students tested in the 1975 Australian Studies in School Performance project. These students were again tested in reading and numeration in 1979 when they were 14 years old, in conjunction with the Survey of School Leavers project. In the long term it is intended to again follow up this sample perhaps in 1983 when they will be 18 years old. The literacy and numeracy levels of these persons would again be assessed and related to their current circumstances of education and employment.

Very little time was available for work on this project in the year 1980–81, although files linking their achievement in 1975 and 1979 have been prepared. A report on this phase of the study will be written as soon

as possible. However, there are no plans to work on this project in 1981–82 but to re-activate the program in the following year in preparation for tracing, interviewing, and analysing the results for these students in late 1983.

Studies of Sex Differences in Achievement in Mathematics and in the Transition from School

Jillian D. Mason, John P. Keeves, Warren B. Jones, Robin G. Rowlands (Honorary Staff Member)

(This project is included in the ACER Core Program.)

This project involves two distinct studies. In the first study, factors influencing sex differences in achievement in mathematics are reviewed and the differences between boys and girls in the attitudes towards and achievement in mathematics are examined at both the 13-year-old and pre-university levels for both 1964 and 1978. A report has been prepared for publication that examines the highly significant increase in participation rates in the study of mathematics by girls at the pre-university level and, as a consequence, the marked increase in yield of girls who are competent in mathematics from the terminal year of secondary schooling.

The second stage of the project involves a secondary analysis of data obtained in the Survey of School Leavers. Of particular interest are those students who left school early and entered the workforce or some other form of post-secondary studies. Using the same basic status attainment model as used in the Survey of School Leavers, this stage of the project would examine the effects, for both males and females, of educational achievements on early post-school and occupational attainments. The data have been analysed and a draft report on this aspect of the project is in preparation.

Publications

Mason, Jillian, D. *Towards Equality: Progress by Girls in the Learning of Mathematics in Australian Secondary Schools.* Hawthorn, Victoria: ACER (in press).

STUDIES OF SCHOOL AND HOME PRACTICES

IEA Study of Achievement in Written Composition

Graeme Withers

(This study was funded from the ACER Core Program.)

The first draft of the research proposal for this study was brought to the IEA council meeting in Helsinki in 1980, and was prepared by Dr Alan Purves of the University of Illinois at Urbana. Following comment and discussion on the draft rationale, a decision was taken to participate in the first stage of the study, and national background papers and questionnaires were prepared and completed. Samples of writing were collected and forwarded to the International Centre for the project in Urbana.

Mr Withers attended a conference of National Research Co-ordinators for the project at the University of California, Los Angeles in April 1981. The purposes of this meeting were to discuss and amend the draft manual for the study and to review progress so far. Seventeen countries are participating in the study.

Pattern Processing and Mathematics Education in Individual Children

Bettina M. Blackall (Honorary Staff Member)

(This project was funded by the Education Research and Development Committee.)

'Pattern and Order in the Number System' was one innovative topic included in primary school mathematics courses in the 1960s. It was argued then, and still is, that children should come to realize that the number system is not haphazard, but is highly organized, self-consistent, and interrelated. An appreciation of pattern and the growth of an ability to process pattern become important factors in the development of many mathematics topics.

This project is aimed at obtaining a clearer understanding of how the pattern-processing ability develops in children by the investigation of the actual methods children employ in undertaking pattern tasks. The individual child is encouraged to articulate his pattern-processing strategies in response to questioning directed towards revealing his problem-solving protocol.

Classroom Environment Study: Teaching for Learning

Adrian Fordham (to February 1981), Sidney F. Bourke (from June 1981)

(This project was included in the ACER Core Program.)

This is a three-phase study consisting of (a) a survey of teacher characteristics, school resources, and teaching and learning activities; (b) classroom observations of teaching practices and their relationships with student activity and outcomes; and (c) the training of teachers in specific practices identified in phase two leading to assessments of the effectiveness of the training in terms of teacher behaviours and student outcomes.

The first phase of this study, that is the teacher survey, was carried out in third term 1980 and a draft report describing the results has been prepared. The survey involved a total of approximately 1600 Victorian teachers of mathematics at Years 2, 5, and 8, and science teachers at Year 8.

The time available to teachers (class time, amount of homework, and preparation and correction time) and the availability and use of ancillary staff were among aspects of the instructional setting investigated. Whereas the allocated classroom time for the three levels of mathematics was similar at between 225 and 270 minutes per week, as might be expected the amount of homework set varied considerably from an average of 32 minutes per week for Year 2 to 68 minutes per week for Year 8. There was consistency in responses from all four groups of teachers concerning the availability of ancillary staff help, with between 59 and 68 per cent stating that it was not available.

Questions were asked concerning teaching and assessment methods, the use of instructional materials, and influences on teaching practices. The most commonly used teaching strategy overall was whole class instruction, although a greater variety of methods was reported by the Year 2 teachers. The second most-commonly reported method was having students work independently in class, on exercises and assignments set by the teacher. The majority of the primary teachers indicated that they defined for the students what was to be learnt at the beginning of each lesson. Although large numbers of the secondary mathematics and science teachers gave instructional cues in this way, there was a greater reliance on student reading of texts and assignments and, in the case of science, on the use of teacher summaries at the end of lessons. No more than five per cent of teachers at any age level stated that they did not assess their students. However up to 50 per cent did not use diagnostic tests. While the majority of primary teachers commonly used specialized instruction following assessment, substantial numbers of secondary teachers responded that no corrective procedures were adopted. The most commonly-used instructional materials were teacher-prepared work sheets and the chalkboard or overhead projector. Only the

Year 8 mathematics teachers indicated that a substantial proportion of lesson time involved the use of textbooks. The mathematics teachers at all year levels agreed that the most important aspects of their teaching were the importance of basic skills in computation, the use of common measures, and developing student ability to apply mathematical ideas and skills to real-life situations.

Finally teachers were asked about their degree of responsibility for major aspects of their work, and their level of satisfaction with various aspects of teaching. All four groups of teachers responded that they were fully responsible for the selection of the materials and methods they used, the selection of achievement tests, and the standards students were expected to reach, and at least moderately responsible for the selection of topics. For both primary and secondary teachers the most satisfying aspects of their job were the courses they taught and the least satisfying were the level of resources available and their general status and recognition by the community for the work they did.

Some aspects of the context of teaching arising out of the teacher survey questionnaire will be used in planning the classroom observation study which forms the basis of the second phase of this project. It is anticipated that the observations will be carried out in first term 1982 in at least 50 Year 5 mathematics classrooms in Victoria.

Publications and Papers

Fordham, A. The Context of Teaching and Learning. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Evaluation of the Language Development Project

Kevin J. Piper

(This project was funded by the Curriculum Development Centre.)

The Language Development Project is a major national curriculum project being undertaken by the Curriculum Development Centre. It is concerned with all aspects of the language development of students in Years 5 to 8, the upper primary and lower secondary years. Phase Two of the project is principally concerned with the development of curriculum materials for students and teachers, and the ACER has been undertaking an independent national evaluation of this phase of the project's activity.

Eight developmental teams, one located in each State and Territory, are involved in the project, and a local evaluator is attached to each team. In addition to co-ordinating the activities of this evaluation team, the national evaluator is responsible for the local evaluation of the work of the CDC and ACT Language Development Project.

During 1980–81, the work of the evaluation has been principally concerned with a formative evaluation of the process of development at

both the national and the local level, and with the attempt to define the national identity of the project as a whole.

While the model developed in the original evaluation proposal now looks, with the benefit of hindsight, somewhat too rigid, somewhat too static, and somewhat too sequential as a description of the evaluation as it has developed during 1980–81, it nevertheless retains a basic relevance. If it can be imagined as a good deal more flexible, a good deal more dynamic, a good deal less sequential than the bare bones of the proposal suggest, it continues to provide a reasonable representation of the conceptual framework within which the evaluation is proceeding. If the evaluation is to continue to perform its function of providing timely formative feedback to project developers, it must continue to remain responsive to the needs of the project as perceived by project participants rather than to a pre-specified plan of action.

Four reports have been prepared for the Curriculum Development Centre during 1980–81: two on the work of the national project, and two on the work of the local CDC and ACT team.

Teaching Style and Language Learning

Kevin J. Piper

(This project was included in the ACER Core Program.)

This project is concerned with an investigation into current school practices in the teaching of English language, with particular reference to teaching directed towards the attainment of language competence. The aims of the study are to map a range of approaches to the teaching of English language in Australian schools; to determine the relevance of the concept of curriculum style to the English language curriculum; and to determine what modification if any would be required in order to develop a typology of curriculum style appropriate to the English language area; to extend the concept of curriculum style to include a consideration of teaching methods and instructional techniques; and to develop further the concept of competence and explore the variety of viewpoints among English language teachers as to what constitutes language competence.

During 1980 exploratory case studies of the English language programs of 25 schools in New South Wales, Victoria, and the Australian Capital Territory were undertaken, and an interim report was prepared on this first phase of the project. During 1981 focused case studies of eight to ten of these school programs are being carried out, leading to a final report on the study in June 1982. An important contributory element to the project was the holding in August 1980 of a small seminar on the concept of curriculum style, under the sponsorship of the Education Research and Development Committee. A report on the seminar is included as an appendix to the interim report of the study.

PROGRAM IN SOCIAL CONTEXT OF EDUCATION

Advisory Committee

Professor P.H. Karmel (Chairman), Mr C. Beltz, Dr R. Maddocks, Professor K. Marjoribanks, Associate Professor M. Poole, Professor R. Selby Smith, Dr J.G. Ainley, Dr T.H. Williams (The Committee met once during the year.)

Overview

The Advisory Committee expressed some concern over the appropriateness of the Division's name as a description of its purpose and activities. Members of the Division suggested that the name of Division G of The American Educational Research Association would be an appropriate alternative. AERA's Division G is called the Social Context of Education and its concerns are described as follows:

> (investigations) that seek to illuminate the relations between educational processes and the social, political, and economic contexts in which they operate ... (the application of) conceptual schemes and research methods from anthropology, economics, political science, sociology, and social psychology to examine educational practices, problems, policies, and research ... studies conducted in educational settings that explore problems formally grounded in social science concepts and theory, including those which have direct implications for either research or practice. Of particular interest are questions relating to the development of educational policies as they are informed by recent work in the field.

Since this description has all of the elements of the original program statement detailed in the ACER *Annual Report* of 1978–79 a decision was made to change the name of Social Foundations to Social Context of Education (SCE).

Program Emphases

The greater part of the Division's research effort was expended in two programs indicative of two of the three previously defined substantive emphases of SCE—'The Study of Educational Systems' and 'The Enduring Effects of Education' (ACER *Annual Report*, 1978–79). These two programs are identified respectively as the Staffing and Resources Study and the Survey of School Leavers. Each is supported, in the main, by outside funds and each has an explicit policy research orientation, characteristics also reflective of general orientations defining SCE. In addition, each one is comprised of several linked investigations focused on a common theme and, thus, has the status of a research *program* in which individual studies show varying degrees of mutuality.

Work on the Staffing and Resources Study is nearing completion to the stage of draft reports. Three reports are planned: one focusing on a comparative analysis of resource allocation policies at the level of government school systems in Australia and New Zealand; another which examines resource allocation within schools in these same school

systems using data on a sample of some 700 primary and secondary schools; and the third which looks in detail at the processes and consequences of resource allocation with case-study data of 16 schools.

The Survey of School Leavers continued over the year as a research program with five main strands: an investigation into the psychosocial consequences of unemployment; research into the processes underlying educational and occupational decisions; and two studies on the theme of 'quality of school life'. A monograph on the educational and occupational decisions of 14-year-olds was published, drafts of reports on the latter two studies are available, a draft report on the psychosocial consequences of unemployment is in preparation, and analyses of the educational and labour market experiences of 18- and 19-year-olds are underway. Funding for a further three years is being negotiated on a year-to-year basis with a consortium of federal government agencies.

The remaining work completed during this period also focused on education–labour market issues. A study of the education and employment expectations and experiences of students and graduates from institutions within the Victoria Institute of Colleges was undertaken and a report of this study has been published. In addition, a review of the recurrent education debate and its applicability in the Australian context was developed from an economic perspective. A monograph summarizing this work is in preparation.

To summarize: during the year SCE has undertaken research in each of the three substantive areas defined in 1978 as its primary concerns, though our attention to 'Schools and Socialization' as an area of interest has been limited to the one study reported in the monograph *School and Work in Prospect*. Issues in the areas of 'The Study of Educational Systems' and 'The Enduring Effects of Education' have received most attention. Since questions to do with resource allocation and the education–labour market transition have occupied centre stage over the past few years, it follows that the balance of the SCE research program weighs in these directions. A document detailing proposed research in each of the three substantive areas has been discussed with the SCE Advisory Committee.

EVALUATION STUDIES OF PARTICULAR POLICIES AND PROGRAMS

Staffing and Resources in Australian Schools

John G. Ainley, John P. Keeves, Phillip A. McKenzie, Andrew Sturman

(This project was funded in part by grants from the participating education departments through the Australian Education Council and in part from the Core Grant.)

This study was commissioned by the Australian Education Council as an investigation of the allocation of staff and resources to government

schools in New Zealand, each Australian State, and the Australian Capital Territory. The terms of reference for the study were as follows:

1 to examine existing policies, procedures, and trends relating to the allocation of staff and resources to and within Australian and New Zealand schools;
2 to inquire into difficulties faced by school systems and schools in allocating staff and resources to and within schools;
3 to examine measures that are being taken at the present time at various levels to overcome these difficulties;
4 to review new developments and alternative arrangements in staffing schools;
5 to recommend action which can be taken by schools and school systems to improve existing arrangements or overcome problems experienced in staffing schools;
6 to recommend appropriate field studies or action research projects which school systems can carry out and which will enable the trying out of creative and practical ways of reorganizing staff at the school level;
7 to develop proposals which school systems in the longer term might adopt for the future direction of policies and procedures concerning the allocation of staff and resources to and within schools.

In the original proposal for the study, the Australian Education Council also listed nine contemporary issues related to the terms of reference:

1 the balance between primary and secondary staffing allocations;
2 the determination of staffing formulae;
3 the alternative methods of staffing in use of aides, specialists, ancillary staff, part-time teachers;
4 teacher work load and non-contact time;
5 flexibility in deploying staff within schools;
6 implications for staffing policy of various philosophies and methodologies of teaching;
7 effects of alternative staffing arrangements;
8 system awareness of and responsiveness to the needs of individual schools;
9 regionalism and staff allocation principles and procedures.

As part of the study a series of working papers has been produced to inform interested parties of progress which has been made.

One facet of the study has involved an investigation of the policies of education systems. On the basis of reports prepared by each system with general co-ordination from the ACER, a report concerned with present policies and future options in each system has been prepared and circulated in draft form to each education system.

A second facet of the study involved a nation-wide survey of policies and practices employed by schools. Fifty primary and 50 secondary schools in each system have been surveyed by means of a questionnaire. On the basis of these data, a report concerned with school patterns of

resource allocation has been prepared in draft form and circulated to each education system.

A third facet of the study comprised case studies of selected features related to resource allocation in 16 schools. Reports of each individual school have been prepared and returned to these schools; and a report based on the perspectives obtained from these 16 case studies has been prepared as a draft for circulation to each system.

In addition, an overview synthesizing the results of the three reports is being prepared.

Publications and Papers

Ainley, J.G. Teacher and student views of learning environments. *Victorian Institute of Educational Research Bulletin*, 1981, No. 46, 3–15.

Ainley, J.G. Background aptitude and school factors related to achievement in Year 12 science subjects. *Research in Science Education*, 1980, **10**, 129–39.

Patterns of School Organization

Phillip A. McKenzie

(This project was included in the ACER Core Program.)

The major portion of the work associated with this project has been undertaken in conjunction with the Staffing and Resources Study. Through that study the principal forms of educational provision currently applying in Australian and New Zealand government schools have been mapped and estimates prepared of the recurrent per student costs of each of the major school types. In addition an attempt has been made to identify emerging trends that are likely to necessitate a reconsideration of the appropriateness of current school structures. In this context it is argued that new developments are to be expected particularly in the organization of the upper secondary school. Such developments would include the establishment of senior secondary colleges such as currently operate in the Australian Capital Territory and Tasmania, the promotion of clusters of schools in order to pool scarce resources, and greater liaison between the upper secondary school and post-secondary institutions. The major factors contributing to the development of these proposals as alternatives to the traditional form of upper secondary school as it operates in most education systems would be the increasing difficulty of many schools in maintaining an adequate curriculum range in the face of declining enrolments, and the additional pressures placed upon schools by the increasingly diverse nature of the upper secondary student body. In the short-to-medium term, these factors are likely to grow in force and lead to greater discussion of the appropriateness of traditional forms of upper secondary school provision.

Identification of the relative costs and effects of the emerging patterns of upper secondary school organization would be an important contribution to that debate.

NATIONAL STUDIES OF EDUCATIONAL OUTCOMES

A Survey of School Leavers

Trevor H. Williams, Margaret Batten, Jeffery J. Clancy, Sue Girling-Butcher

(This project was funded in part by a grant from the Education Research and Development Committee and in part from the Core Grant.)

The research program incorporates six studies which focus on the influence of education and work on the transition of youth to adult life. The program was designed around follow-up studies of the two national samples of students (10-year-old and 14-year-old students in 1975) used in the 1975 Australian Studies in School Performance.

A representative sub-sample of 1000 students was selected from the younger group in the original sample. In the period July 1979 – October 1980, these students responded to two questionnaires on the quality of school life and two on school and work.

In the analysis of the data from the first school and work survey, the following patterns of effects were examined:

1 the effects of State, school, family, and sex on achievement in basic skills in primary school;
2 the effects of all these factors, including achievement in basic skills, on learning difficulties encountered in the early years of high school in the areas of reading, number work, and writing;
3 the effects of all these factors on self-concept of ability and the support provided by significant others;
4 the effects of all these factors on the educational and occupational plans of the students in the sample.

The findings of these analyses have been presented and discussed in the published report.

The third survey of the 6000 respondents in the older sample was undertaken in October 1980 to provide information on current educational and occupational status, quality of life, influences on job choice, and reactions to unemployment.

The data from the two Quality of School Life surveys were analysed and an instrument produced that contained six scales and 40 items. Further work is continuing on the measure. The case study of the quality of life in seven schools was concluded with interviews of students in four of the schools. Particular note was taken of differences in the attitudes of students at different year levels and of the factors in the school environment that had most influence on the formation of attitudes.

Publications and Papers

Williams, T.H. and Batten, M. The Quality of School Life. Paper presented at the AARE Annual Conference, Sydney, November 1980.

Williams, T.H., Batten, M., Clancy, J.J. and Girling-Butcher, S. School, Work and Career. Paper presented at the AARE Annual Conference, Sydney, November 1980.

Williams, T.H., Batten, M., Girling-Butcher, S. and Clancy, J.J. *School and Work in Prospect: 14-Year-Olds in Australia.* (ACER Research Monograph No. 10). Hawthorn, Victoria: ACER, 1980.

STUDIES OF THE EDUCATION OF SPECIAL GROUPS

Studies of Unemployed Youth

Jeffery J. Clancy

(This project was included in the ACER Core Program.)

This project is an investigation of the social and psychological effects of unemployment on youth. Specifically it focuses on how the experience of unemployment affects occupational development, work attitudes and values, quality of life, and leisure patterns. The study began in mid-1978 and will be completed in 1981.

Initial work on the study was conducted in conjunction with the Survey of School Leavers, following up the 6247 teenagers who comprised the 14-year-old sample in the 1975 Australian Studies in School Performance. This group was surveyed by mail questionnaires at the end of 1978, 1979, and 1980. The surveys collected data on educational attainments, occupational history, family background, and quality of life.

On the basis of data collected in the 1978 and 1979 surveys, a sample of 200 Victorian school leavers was selected for an interview study which focused on the effects of unemployment. The sample included respondents who had never been unemployed as well as those who had been out of work and 50 of the non-respondents to the mail surveys. Field work was conducted during mid-1980 and yielded 123 usable interviews.

Analysis of these data and preparation of a final report are now well under way and the project should be completed by the end of 1981.

Publications and Papers

Ainley, J.G. and Clancy, J.J. Apprentices in Australia. Paper presented to the Education Section, ANZAAS, Brisbane, May 1980.

Clancy, J.J. The Consequences of Youth Unemployment. Paper presented to the Education Section, ANZAAS, Brisbane, May 1980.

Clancy, J.J. Youth Unemployment: The Social and Psychological Consequences. Paper presented at the AARE Annual Conference, Sydney, November 1980.

The Employment of Graduates and Diplomates of Colleges of Advanced Education

Warren B. Jones

(This study was commissioned by the Victoria Institute of Colleges and supported by funds provided by the Trustees of the Malcolm S. Moore Estate and Annie V. Moore Estate.)

The study was concerned with an investigation of the views, expectations, and experiences of several groups of people: new and final year students who were enrolled with the Victoria Institute of Colleges; graduates and diplomates who were awarded a degree or diploma in either 1976 or 1978 by the VIC or the colleges affiliated with the VIC; and employers and non-employers of graduates and diplomates. The main aims of the study were to determine what proportion of these graduates and diplomates obtained satisfactory employment; to examine the views and attitudes of employers and non-employers concerning the recruitment of graduates and diplomates; and to examine the attitudes of graduates, diplomates, and students towards employment and the means by which they adjusted or accommodated their expectations to the opportunities available to them. Approximately 9000 students, graduates, and diplomates and 800 employers were surveyed at the end of 1979, using mailed questionnaires.

A final report has been published. Some of the topics which have been included in the discussion of the survey results are the educational history, work experience, job satisfaction, the time taken to find full-time employment, job expectations, perceived job prospects, job-seeking strategies, and ideas of future jobs of the students, graduates, and diplomates surveyed; and perceived future employment trends, recruiting techniques, recruiting style, recruiting difficulties, and the involvement of employers and non-employers in tertiary education.

Publications and Papers

Jones, Warren. *Education and Employment: Expectations and Experiences of Students, Graduates and Employers.* (ACER Research Monograph No. 11). Hawthorn, Victoria: ACER, 1981.

Professions in Australia

Jenny Slater, Trevor H. Williams with Dr D. Anderson, Australian National University and Professor J. Western, University of Queensland

(This project was funded by grants from the Australian Research Grants Committee and from the Education Research and Development Committee.)

This is a longitudinal follow-up study of 3000 individuals who entered engineering, law, medicine, and teaching faculties in either 1965 or 1967.

The original study followed this group as students over the four to six years of their degree course. In 1978 Dr Williams obtained a grant from the ERDC to study the feasibility of contacting this sample again. A questionnaire was mailed to the last known address of each sample member. Given that the addresses were from four to twelve years old, the response rate of approximately 50 per cent in each of the four professions was seen as encouraging and sufficient to justify a full-scale follow-up study. This study began in 1981 with attempts to trace the large number of 'address unknowns' in the sample. Three contacts, each by mail, are planned for the period 1981 to 1984.

PROGRAM IN MEASUREMENT AND EVALUATION

Advisory Committee

Professor D. Spearritt (Chairman), Dr A. Barton, Mr L.D. Blazely, Professor B. McGaw, Mr P. Varley, Dr J.F. Izard, Mr G. Morgan, Dr H.A.H. Rowe (The Committee has met once during the year.)

Overview

A number of aspects of the program in the Measurement and Evaluation Division merit comment. The testing services provided by the ACER have been maintained and expanded. Further development of new techniques of analysis has been undertaken. Assistance has been given to other educational authorities both within Australia and overseas in the training of staff in research and development skills, and efforts have been made to translate new theory into convenient and appropriate procedures which can be implemented by the classroom teacher. The ongoing activities relating to test maintenance and test adaptation have continued, and research into measurement issues has continued.

The provision of testing services has required considerable effort behind the scenes to maintain effective programs in spite of funding constraints, cost rises, and outside industrial problems which delay receipt of tests or results and which increase the pressures on staff, particularly when endeavouring to meet the original deadlines. Although the information provided through testing services is not published in the research literature, it is appropriate to record the dedicated efforts of both professional and support staff in providing this information to the many clients.

New techniques for analysis are a consequence of the refinement of earlier approaches or of the further development of theory. A failure to monitor new developments would result in an increasing obsolescence of the procedures adopted in the collection and processing of data, in analysis, and in interpretation. Technological advances in both software and hardware have made microcomputers more readily available in schools, colleges, and universities. Greater access to such equipment has considerable potential for improving the analysis of the information collected by teachers and psychologists and it is important that the ACER staff keep up to date with developments both in Australia and overseas. The provision of computer-manipulated banks of test items for personnel selection, achievement testing, and diagnostic work has received a great deal of attention at the level of item construction and in the development of programs to extract these items from the item bank at teacher request or on the basis of a candidate's performance on prior items. Given that many test publishers have been developing materials of this nature, it is important that the ACER continues to maintain initiatives, and to foster co-operation with other research organizations with similar interests so that the ACER is well placed to adopt item

banking procedures where appropriate and economic. Such activities are consistent with the current efforts to develop science item pools at Years 11 and 12 level, to make available in Australia such material as the New Zealand Item Bank—Mathematics, and with the efforts to increase the range of evaluation materials in such areas as written expression, social learning, and listening.

As well as developing improved procedures for use by teachers and psychologists, training has been provided to advance skills necessary for research and development. A number of teachers from the Education Department of Victoria have been able to develop expertise in test development and analysis over an extended period by working on a number of projects. Two officers from the Examination Branch, Ministry of Education, Singapore, spent several months at the end of 1980 working at the ACER and a number of ERDC Research Fellows have been able to work on short-term projects to extend their research skills. In addition, a number of fourth-year psychology students have undertaken research practicums at the ACER and ACER staff have conducted workshops on test analysis and local norming for several authorities. While the provision of such training programs places an extra load on ACER staff and present constraints would appear to prevent any extension of such training facilities, these programs are worthwhile if the range of expertise in the educational and psychological community is increased. It is hoped that ACER's efforts in this respect will lead in some measure to wiser use of evaluation procedures.

The revision of tests and the gathering of data about the tests continue to be a substantial and extensive part of the Division's program. Tests originally published by the ACER need to be replaced with new versions, and tests from overseas publishers need to be adapted under licence. Over the past five years the resources available to the ACER for this work have been heavily committed to the revision and renorming of psychological tests. We are hopeful that the results of this expenditure will shortly be made available for use in schools and tertiary institutions and attention can be given to other areas of need. Potential users of these materials have co-operated very willingly in the collection of data for manuals and the ACER expresses its gratitude for their assistance.

DEVELOPMENT OF TESTS AND INSTRUMENTS FOR USE BY TEACHERS AND GUIDANCE OFFICERS

School Achievement Tests

Graham Ward, Stephen Farish, Mark Wilson

(This project was included in the ACER Core Program.)

This project has been concerned with the development of tests over a range of subject areas for use in primary and junior secondary classrooms. Following a workshop held in Sydney in 1979, working groups at the ACER and the New South Wales Department of Education developed pools of items in the areas of computation, measurement, reading, and study skills. Trial testing of the computation items was undertaken in November 1979 by the ACER in co-operation with working groups from the NSW Department of Education and the ACT Schools Authority in schools in the ACT, New South Wales, and Victoria. Another trial-testing program in Victorian schools involved items in reading, measurement, and study skills. Reading items were tested in Victorian schools in April 1980 and in South Australian schools in August 1980 at the same time as the Progressive Achievement Tests in Reading were tested.

In June 1980 the Australian Education Council accepted oversight of the development of progress and review tests and set up a Committee of Management. The first meeting of that committee was held in August 1980 and the title 'Australian Co-operative Assessment Program' (ACAP) was adopted for the project. A conference was held in Sydney in October 1980 to examine initiatives in the reading area.

The ACER has continued to develop the computation materials, using Rasch scaling procedures to select items for a set of progress and review tests. It is intended to complete the series for publication in 1981. Analyses have been made of a set of cloze passages, to test reading comprehension, but there is a need to explore the effects of alternative scoring procedures on the calibration of items.

Career Planning and Guidance

Janice Lokan and Meredith Shears

(This project was included in the ACER Core Program.)

During the 1980–81 financial year, all aspects of the adaptation, validation, and publication of the *Program for Assessing Youth Employment Skills* (PAYES) materials were completed. The three PAYES test booklets, *Scoring and Individual Profile Booklet, Directions for Administration and Manual* are now available for sale.

Work on the *Career Development Inventory* and *Manual* continued during the year and is now close to completion. Preliminary work on an Australian adaptation of Holland's Self-Directed Search (SDS) is in progress.

In order to synchronize as much as possible with northern hemisphere countries involved in the international Work Importance Study (WIS), plans for the collection of trial data for this project were advanced so that the first stage of the field testing of questionnaires has now been completed. Further field testing has already begun, and the main data collection, scheduled to take place early in 1982, is in the planning stages.

Tests, Publications, and Papers

Lokan, J.J. Adolescent career development and its assessment. *Australian Science Teachers Journal*, 1980, **26**(3), 19–24.

Lokan J.J. The Work Importance Study in Australia. Paper presented at WIS seminar, World Seminar on Employment Counselling, Ottawa, September 1980.

Lokan, J.J. and Biggs, J.B. Student Characteristics, Motivational and Process Factors in Relation to Effective Career Development. Paper presented at the AARE Annual Conference, Sydney, November 1980.

Lokan J.J. and Shears, M. PAYES: A Program for Assessing Pre-employment Skills in Disadvantaged Adolescents. Paper presented at the AARE Annual Conference, Sydney, November 1980.

Program for Assessing Youth Employment Skills (PAYES): *Booklet I* [Attitudinal Measures]; *Booklet II* [Cognitive Measures]; *Booklet III* [Vocational Interest Inventory]; *Scoring and Individual Profile Booklet*; *Directions for Administration*; *Manual*. Australian experimental edition. Hawthorn, Victoria: ACER, 1981.

Curriculum Materials Evaluation

Peter Jeffery

(This project was funded from ACER's income from sales.)

Work is continuing on the study of how teachers obtain information about curriculum materials. Processing of data has been completed and the report of the study is now being written.

A number of materials have been placed for trial and review, and three Review Reports have been prepared.

Publications and Papers

No. 34 Transition. Mary Mannison, Kelvin Grove College of Advanced Education, Queensland.

No. 35 Transition. Grahame T. Nowacki, Eltham College, Victoria.

No. 36 Listening to the World. Patricia McLean, ACER.

Victorian School Achievement Tests

J.D. White (from July until December 1980), Jackie Stanyon, Lee Waddell, Faye Holzer, Lesley Howard (from February 1981), Meredith Doig (from February 1981)

(This project was funded by the Victorian Education Department and staff working on the project were seconded from that Department.)

As a contribution to the Australian Co-operative Assessment Program, this project, established in July 1980, is a joint venture between the Victorian Education Department and the ACER. The aims of the project are to provide materials which can assist teachers to evaluate the progress and development of their students in spoken and written language and social learning. Currently materials are being designed for use mainly at the upper primary and lower secondary levels although it is envisaged that in the long term Years 3 to 9 will be included.

Three Advisory Committees have been formed for spoken language, written language, and social learning. In addition to representatives from the project team and other research staff at the ACER, membership of these Committees comprises educationalists, including teachers from other institutions. Rationales and materials for all three areas have been prepared and submitted to the respective Advisory Committees.

For spoken language, 21 listening tests have been devised, panelled, and submitted to a selection of practising teachers for inspection and comment. Of these, 15 are ready to be field tested and six are under revision. Types of listening activities which are included in the tests are auding, comprehension, characterization and relationship, phonology, and register. One set of materials for the construction of an observation schedule has been devised, panelled, and piloted among practising teachers. The rationale and other sample materials are now under the consideration of the Advisory Committee and a number of practising teachers. An evaluation framework has been devised for listening activities and is being piloted among practising teachers to provide empirical information for consideration by the committee. In addition to evaluation instruments, other materials have been devised or reviewed to make readily available suggestions for follow-up activities. Among material that has been reviewed for supplementary resources is the 13-year collection of educational broadcasts of the Australian Broadcasting Commission.

In written language, the context and process of writing and the texts that students produce have been the three areas which have been given consideration. Model items have been devised together with methods of validation and types of marking to be employed. These items cover socially useful tasks which vary in difficulty. They include writing different kinds of letters, completing forms, and writing instructions and messages. For extended pieces of writing which involve personal narrative, a scale has been devised and validation procedures are being

formulated. To provide information about students' attitudes to writing, a writing attitude scale is being developed. Progress in this area has resulted in the construction of a questionnaire.

An extensive review of approaches to evaluation in social learning, social studies, and social science has been undertaken. Key areas have been identified for the development of evaluation materials. Work has commenced on the development of instruments and strategies for the evaluation of inquiry. Tasks completed include an analysis of definitions stated in various social studies documents, a survey of teacher opinions, and a critical review of already developed instruments. As part of the project, the production of a teachers guide on evaluation is being developed. A National Conference on Social Studies is being organized for late 1981.

Chemistry Unit Tests

Chris Commons

(This project was funded by ACER's income from sales. Dr Commons was seconded from the Victorian Education Department.)

A supplement containing about 320 multiple-choice items has been published for the *ACER Chemistry Test Item Collection (CHEMTIC)* which was released in 1980. *CHEMTIC* contains items related to the Core section of the Victorian HSC course and the supplement provides teachers with items for the Options section of the course. Both volumes are interim editions of an item bank which will contain items related to the chemistry courses taught at the Year 11 and Year 12 levels in all Australian States. It is intended that the item bank will be published early in 1982.

Publications and Papers

ACER Chemistry Test Item Collection Supplement. Hawthorn, Victoria: ACER, 1981.

Commons, C. Assessing the HSC Chemistry Options: ACER CHEMTIC Supplement. *Lab Talk*, 1981, **25**, 27.

Screening and Diagnostic Tests for Early Primary School

Helga A.H. Rowe

(This project was included in the ACER Core Program.)

This project has now been completed. The results of the research and development conducted in this project over a number of years are a battery of 10 separate diagnostic and screening tests, each with directions for administration, and an accompanying monograph entitled *Early*

Identification and Intervention: A Handbook For Teachers and School Counsellors. All 10 tests are research based. They were developed according to a criterion referenced model of measurement, and thus provide teachers and counsellors with meaningful guidance in the development of individualized intervention procedures, and in determining the progress of individuals. Full details are provided for each test concerning its rationale, purpose, description, development, interpretation, and implications for teaching.

Performance on the tests was investigated for representative and validation samples. Both conventional test statistics and Rasch calibrations are provided. Thus performance on the tests can be translated directly into specific learning requirements for each individual child.

Three broad areas of development are covered by the tests in the series. These are auditory analysis skills, conceptual skills, and language skills. The accompanying monograph provides a general discussion of traditional and more recent approaches to early identification and intervention procedures, and utilizes Cronbach's 'behavioural assessment funnel' as a model for the screening and diagnostic purposes expected to be served by the ACER tests.

The set as a whole was designed to provide a series of estimates of a child's cognitive development and maturity. Apart from their application for the identification of particular strengths and needs of individual school beginners, the tests are expected to have wider utility as counselling and guidance tools in the lower grades of primary school and with certain groups of handicapped older persons. The tests provide an appropriate means for the assessment of children who cannot read and for remedial students, as reading is not required for the ACER Early School Series.

Publications and Papers

ACER Early School Series: Auditory Discrimination Test; Figure Formation Test; Number Test; Recognition of Initial Consonant Sounds Test; Word Knowledge Test; Comprehension Test; Negation Test; Prepositions Test; Pronouns Test; Verb Tense Test. Hawthorn, Victoria: ACER (in press).

Rowe, H.A.H. *Early Identification and Intervention: A Handbook For Teachers and School Counsellors.* Hawthorn, Victoria: ACER (in press).

Item Banking

John F. Izard

(This project was funded by ACER's income from sales and by a grant from the Victorian Education Department.)

In May 1980, a meeting at the ACER of representatives from all state and territory education departments, parent and teacher organizations, and other statutory bodies proposed that the ACER should act as a

clearing house for materials, information, research findings, expertise, and developments in Australia and overseas.

Contact has been maintained with overseas agencies so that ACER's information about developments in item banking are up to date. A number of workshops have been conducted on the applications of the Rasch model to item banking in an endeavour to disseminate information about item banking to teachers and research workers.

Research into ways of applying the Rasch model in an item bank context without resorting to computer-based calculations has continued. Simplified graphical methods have been developed and will be included in the manuals for the Mathematics tests which have remitted from the School Achievement Tests project.

Maintainence of Educational Tests

John F. Izard, Graham Ward, Stephen Farish, Allyson Holbrook

(This project was funded from ACER's income from sales.)

Progressive Achievement Tests

In 1980 work began on revising the *Progressive Achievement Tests in Mathematics*. The items were examined, some were modified or rewritten, and some new items were produced. The revised test forms have been trial tested in Victorian and Queensland schools, the test data have been analysed, and final tests have been formed. A manual is being prepared.

A re-examination of the *Progressive Achievement Tests in Reading Comprehension and Reading Vocabulary* has been undertaken. These tests were trial tested in Victorian and South Australian schools in 1980. The data from this testing have been analysed. A manual supplement is to be prepared.

ACER Spelling Tests

Spelling Test E1 (Forms X and Y) was developed in the first instance and published by the ACER for the Basic Skills Testing Program of the New South Wales Department of Education. Within New South Wales the test is now available from the Department of Education as part of the Primary Evaluation Program. The test handbook has been rewritten to incorporate brief guidelines for the diagnosis of spelling problems and suggestions for follow-up remediation strategies. A Class Analysis Chart has been devised so that the teacher may assemble the information for a class with a minimum of effort. Further data have been added to the norm tables. This revised edition of the Spelling Test materials should be available for use in schools before the end of the year.

English Skills Assessment

The development of tests of English language skills commenced in 1979. Multiple-choice items were selected from English skills tests of American origin and then adapted for use by Australian students in Years 11 and 12 inclusive. Parallel trial forms were produced and administered to 160 Year 11 college students in the ACT in 1979. The forms were tried out in the one college at two separate sittings, one in October and the other in November. A conventional item analysis and a Rasch Analysis were carried out and the items selected for the trial form showed good discrimination and good test fit.

A pilot study on the final form was undertaken in Victoria in 1980, and 180 Year 11 students and 210 Year 12 students participated in the testing. The results of this study and information about the test batteries were incorporated in an interim manual.

English Skills Assessment is divided into two parts and consists of tests of comprehension, spelling punctuation and capitalization, usage, sentence structure, vocabulary, and logical relationships. The aim of English Skills Assessment is to identify student strengths and weaknesses in areas of English language skills and to promote the development of effective teaching programs. A self-scoring answer sheet provides information about the skills students require in order to answer the test items correctly as well as a convenient summary of student performance on the test. Because the sample of students used in the pilot study was not selected at random from the total Year 11 and Year 12 populations in Victoria, it cannot be assumed to reflect those populations closely in all respects. When English Skills Assessment is published, it is intended that norms will be prepared using test data collected from a more representative sample of Australian students.

DEVELOPMENT OF TESTS AND INSTRUMENTS FOR USE BY PSYCHOLOGISTS

Revision of the Intermediate Level General Ability Tests

Marion M. de Lemos

(This project was funded by ACER's income from sales.)

Work has continued on the revision and renorming of the Intermediate Level General Ability Tests. Four trial forms of the test were constructed and administered to samples of students aged 10 years, 12 years, and 14 years. Approximately 200 students at each of these age levels were tested on each of the four trial forms in July 1980. Following the item analysis of these results, items were selected for inclusion in the final forms of the test.

The two final forms of the test, named the ACER Intermediate Test F and the ACER Intermediate Test G, were normed on a national sample of Australian students in November 1980. These tests were normed together with an Australian adaptation of the latest Otis Lennon Intermediate Level Test published by the Psychological Corporation in 1979. In total, approximately 900 students at each of five age levels (from 10 to 14 years) were tested. Each of the students in the sample took two of the three tests being normed.

The results of the norming study are now being analysed. The composition of each of the norm samples is being examined in relation to that of the total population, and an examination of the progression with age within each age group has been made to determine the age interval to be used in the conversion of raw scores to standard scores. It is expected that the new norms will be constructed and manuals on the tests prepared by December 1981.

Non-verbal Tests of General Ability

Helga A H. Rowe

(This project was included in the ACER Core Program.)

The aim of this project is to develop a set of language- and culture-fair tests of general ability. The major focus during 1980–81, the first year of the project, was on finding a defendable rationale and an appropriate model for the design of a non-verbal test of general ability.

Most intelligence tests which are suitable for group administration involve a considerable amount of written or spoken language. As a rule the testee is required to read questions or to comprehend spoken language and to make an appropriate response. Verbal scores tend to be highly correlated with school achievement and are regarded as good predictors of success in academic studies. However, verbal tests are of little or no value in the assessment of reasoning ability and other intellectual skills of those who cannot read or are not proficient enough in understanding spoken language. Verbal items do not provide a valid means for the assessment of persons from foreign-language backgrounds, children from poor social and linguistic backgrounds, and individuals with certain physical, psychological, and intellectual handicaps.

The content of the group non-verbal tests which are available at present tends to be restricted to items from the domain of visual perception. Thus their correlation with group verbal tests of general ability and with individually administered intelligence tests has tended to be low.

A requirement, additional to that of providing tests which are equally appropriate for use with testees from various foreign language backgrounds, is that the test be culture-fair. Theoretically, for tests of

general ability, the latter requirement suggests that the tests produced meet either one of the following two conditions: that the items included in the tests are such that persons from all cultures can be expected to have had equal opportunity (and equal motive) to learn; or that the test items must possess complete novelty for all people from all cultures.

General ability would seem to be developed by interaction with the total environment including cultural aspects. Hence these conditions are almost impossible to meet. Not only may it be impossible to avoid culturally determined items in tests but, if it were possible to eliminate all cultural influences completely from all items, the test would probably not measure general ability. The assumption underlying the above-noted theoretical requirement—that there exists a set of items which is equally appropriate, i.e. provides equal opportunity and motive to learn, for persons from various cultures—may in fact be invalid.

The research literature concerned with the assessment of general ability and more specific skills in cross-cultural settings and the literature concerned with definitions of intelligence and the identification of cognitive processes were studied carefully. A number of alternative approaches and possible models suggested themselves as a means of tapping general reasoning ability. In other words there are many skill-and-task domains on the basis of which an individual can demonstrate his or her general ability. The problem was to decide which of the competing alternatives should be selected as special points of focus in the definition of the objectives for the tests. It became apparent that, if an attempt were made to incorporate most possible contenders in a single domain of 'general ability', as used to be the practice in the design of omnibus-type tests of ability and achievement, confusion might result concerning what is actually being measured by the test.

A decision was made to aim at the production of a set of smaller tests, each tapping a carefully defined set of skills, i.e. an aspect of intellectual functioning. The initial areas to be covered by the tests will essentially be those traditionally covered in accredited individual intelligence tests, e.g. the Army Beta, Binet, Wechsler tests. The fact that these tests were carefully designed and standardized, and the vast amount of available research concerning their use as a valid means of assessing intellectual functioning, contributed to this choice. It is expected that a number of the areas covered by these tests can be utilized to produce separate sub-tests of relatively homogeneous groups of items, which are expected to be calibrated separately and also be expressed on one scale of comparable scores.

Among the intellectual skills to be covered in the initial tests are basic perceptual and conceptual abilities analysis and synthesis skills, comprehension and rule application, visual and auditory memory, and concentration. Technically the types of items envisaged include picture completion, series completion, picture arrangement, figure formation, perceptual analysis and synthesis of patterns, and various symbolic items. Limited feasibility studies of such item types have been conducted during 1980–81. The present intention is that the tests be Rasch

calibrated. Possibilities concerning appropriate procedures for this have also been investigated. The age of the target population for the test ranges from approximately 8 years to 16 years.

Publications and Papers

Rowe, H.A.H. Measuring the Nature of Performance Differences: A Process Approach. *Resources in Education*, May 1981. (ERIC Microfiche ED 196 962)

Rowe, H.A.H. Structural and Dynamic Components of the Problem Solving Process. Paper presented at the 8th Annual Experimental Psychology Conference, Adelaide, May 1981.

Rowe, H.A.H. WISC-R and WISC: A Study of Redundancy and Structural Comparability. *Resources in Education*, May 1981. (Eric Microfiche ED 196 961)

Maintenance of Psychological Tests

Josephine C. Jenkinson, Meredith J. Shears

(This project was funded by ACER's income from sales.)

This is a continuing project involving the revision and updating of ACER tests and manuals, and the adaptation and collection of data on selected overseas tests.

Contributions of data from test users made it possible to complete the renorming of the Revised Minnesota Paper Form Board Test, and a revised manual was submitted for publication at the end of 1980. The major project following this was a revision and renorming of the ACER Word Knowledge Test Adult Form B, originally developed in 1932 as part of the ACER Silent Reading Tests. An item analysis carried out with Year 10 and Year 11 students indicated that so few items were still satisfactory that further work on Form B alone could not be justified. Two completely new trial forms have now been assembled using the four original forms of the Word Knowledge Test as an initial item pool, adapting and rewriting where necessary. These will be field tested in schools with the aim of producing a new form of 75 to 80 items, and a second shorter form if there are sufficient satisfactory items.

Work on overseas tests included preparation of a brief validity report on the General Clerical Test for publication in the ACER *Bulletin for Psychologists*, an Australian adaptation of the General Clerical Test which is now being printed, and preparation of replacement items appropriate for Australian use for the newly-published Wechsler Adult Intelligence Scale—Revised.

Validation Studies of Intermediate Level Tests

The new ACER Intermediate Test F was normed, using a national sample of Australian students, in April 1981. About 1200 students from

three age levels—10, 12, and 14 years—were tested. Norms for the manual will therefore be based on data collected at both the beginning and end of the school year.

A validation study was also carried out in April 1981. About 400 students, again from the three age levels—10, 12, and 14 years, completed the ACER Intermediate Test F, the Jenkins Non-Verbal Test, and either the ACER Intermediate Test A or D. In this way performance can be compared on the old and new forms of the Intermediate Level General Ability tests and also with a non-verbal measure.

Tests, Publications, and Papers

Revised Minnesota Paper Form Board Test: Manual. (Revised edition). Hawthorn, Victoria: ACER, 1981.

TESTING SERVICES AND PROGRAMS

Australian Scholastic Aptitude Test (ASAT)

Graeme Withers, George Morgan, Allyson Holbrook

(This program was funded from income from users.)

The ASAT Series J has been prepared for administration to the Year 12 populations, as is usual, in the Australian Capital Territory, Western Australia, and Queensland. No changes were made to format or structure, and the test will again be printed in the user States as in 1979–80.

No national seminar was held this year: user representatives met in Melbourne in February to discuss finance and directions. The annual report on ASAT H was tabled together with an interim report on ASAT I and a further research paper on item chaining.

Item preparation and editing for Series J took place, and trial testing was conducted in New Zealand in March 1981.

Tests, Publications, and Papers

Report on the 1980 Australian Scholastic Aptitude Test (ASAT Series I). Hawthorn, Victoria: ACER, 1980.

Australian Scholastic Aptitude Test: Series J. Hawthorn, Victoria: ACER, 1981.

ASAT Special Testing Program

Noel McBean, Evelyn Watson

(This program was funded from income from users.)

Tertiary institutions offering courses for mature-age students have continued to make use of the two-hour versions of the Australian

Scholastic Aptitude Test. In this program, ACER supplies tests on hire at dates specified by individual institutions. Subsequently papers are marked at the ACER and scores reported back to the institutions. Data based on scores are compiled for the total group of users as well as for individual institutions. Minor variations in procedure are allowable within the program. For instance, one institution continues to use a three-hour version of the test. The production of new tests to replace existing tests is under way.

Australian Law Schools Entrance Test

Graeme Withers

(This project was funded by the law schools of the Universities of Melbourne and New South Wales, Monash University, and the Australian National University.)

The first stage of the project concluded with the publication of Series C of this test and its administration to special entry candidates for all participating law schools except the University of New South Wales. The testing took place between November 1980 and March 1981.

No plans have been drawn up for a second stage as yet, although some discussions with the Victorian universities have taken place.

Tests, Publications, and Papers

Australian Law Schools Entrance Test: Series C. Hawthorn, Victoria: ACER, 1980.

Co-operative Scholarship Testing Program

Evelyn Watson

(This program was funded from income from users.)

This program has been conducted since 1962 for a number of independent schools in all Australian States. It provides a battery of tests at two levels: Level 1 for entrance to secondary school; Level 2 for continuation beyond either Year 8 or Year 9 (depending on the State). The areas examined at Level 1 are Written Expression, Humanities, and Mathematics. At Level 2, a Science component is included with the Mathematics. The overall regulation of the program resides in a policy committee representing independent schools and the ACER. The administration of the program, including development of tests, test marking, and score reporting is carried out by the ACER. Test scores, standardized by level and by State, are returned to schools. The use made of these scores varies, but it provides an important element in assessing scholarship candidates.

In 1981, more than 12 000 candidates registered for scholarships

offered by 114 schools. The candidates sat either at participating schools or at one of the 51 country centres or 50 overseas centres set up by the ACER. The tests used this year are the last of a new series which was developed over the years 1977 to 1979.

Development of tests for the next series, due to be used in 1985, was commenced to enable test items to be tried out by subjects ineligible to sit for the scholarship tests.

Miscellaneous Testing Services

Noel McBean, Diana M. Bradshaw

(This program was funded from income from users and income from sales.)

ETS Testing Program

The ACER has continued to arrange and supervise examinations for the Educational Testing Service, Princeton, New Jersey. This resulted in 18 Saturday testing sessions, two Sunday and one Monday special testing sessions. A total of 311 candidates were tested. Many of these candidates sat for the Graduate Management Admission Test. Arrangements have now been made for Deakin University to test candidates for their business administration course. This leaves ACER with more manageable numbers of prospective overseas students.

Psychological Corporation Testing Program

The organization of the Miller Analogies Testing continued on behalf of the Psychological Corporation. Thirty-two candidates were tested and results reported; 12 of these were tested at the ACER. The remainder were tested by psychologists interstate.

Other Testing Programs

A number of small test marking and analysis tasks have been undertaken. They include provision of results and scaled scores to the Victorian Railways and provision of results to the Queensland Electricity Board. Further trial tests were marked and analysed for the Committee on Overseas Professional Qualifications and results for final versions were supplied. The compilation of normative data on mathematics tests used by the Victorian Nursing Council was completed. In addition, scholarship papers were provided and scored for independent schools in the Co-operative Scholarship Testing Program which have candidates at levels not covered by that program.

PROGRAM OF LIBRARY AND INFORMATION SERVICES

Australian Education Index

Margaret A. Findlay, Elspeth Miller

(This project was included in the ACER Core Program.)

This project continued to provide access to educational information by way of the quarterly publication, the *Australian Education Index* and the AEII data base which is available at present for on-line searching through the network, AUSINET.

Over 2000 items were indexed and added to the file during the period under review. As well as the traditional material such as monographs and journal articles, the editors consider, for inclusion in the systems, items such as educational tests and unpublished research reports produced by university faculties and research sections of State Education Departments.

One area of concern is the omission of theses submitted and accepted for higher degrees in Australian universities and colleges of advanced education in the field of education. It is difficult to obtain copies of theses for indexing, and detailed and reliable subject indexing is impossible without reviewing the text or a comprehensive summary of the document. Co-operation is being sought from university libraries to supply summaries of relevant theses and to assist in the compilation of an additional annual publication, *Bibliography of Education Theses in Australia*. Entries will be included in the AEII data base.

During the year, assistance was extended to the New South Wales Department of Education for the compilation of the second edition of *Guide and Index to Selected Materials* by the Curriculum Information Project and also to the TAFE National Clearinghouse in South Australia for the compilation of the second edition of *Initiatives in Technical and Further Education*.

Publications

Australian Education Index (M.A. Findlay and E. Miller, Eds). Vol. 23 (3 and annual cummulation); Vol. 24(1,2). Hawthorn, Victoria: ACER, 1980–81.

Australian Education Review

John P. Keeves

(This project was included in the ACER Core Program.)

Efforts have been made during the period under review to plan sufficiently in advance to ensure that numbers of the *Australian*

Education Review are published regularly. While two numbers have been published during the period under review, neither was prepared and written within the ACER by staff of the Council.

set: Research Information for Teachers

Peter Jeffery

(This project was funded by ACER's income from sales.)

The second issue of *set* for 1980 was well received and the proportion of Australian material was on the increase as availability of this publication became known to potential authors. The *set* advisory committee is almost complete with representatives from all States beginning to stimulate both the flow of items relevant to readers in their areas and the use of the information package by teachers. A number of college and university lecturers have begun to support and use *set* with their students. Very few back numbers of *set* remain for sale.

Publicity to establish the 1981 subscription list was reasonably effective and it was expected that when *set* 1981(1) appeared in May (immediately after advertising in the *ACER Newsletter*) circulation would exceed 1980 levels. However the project received a severe setback when the first issue for 1981 was held up in the long-running Port of Melbourne industrial dispute.

The report of the preliminary study of the impact of *set* conducted by J.M. Owen and K. Hall of Melbourne State College was valuable for the guidance it provided for future development. A further study is now in progress.

General Information Services

Phillip A. McKenzie, Robin G. Rowlands (Honorary Staff Member), John P Keeves

(This project was included in the ACER Core Program.)

A report has been prepared which examines from an economic perspective the recurrent education debate and the applicability of the recurrent education concept to the Australian education and labour market sectors. The report is currently being revised for publication as a research monograph.

Three issues of *State Institute News* have been produced and circulated with the *ACER Newsletter* to provide information on the activities of the State Institutes and to keep their members informed of important developments within the ACER.

Information concerning Australian research in the area of pre-school education was prepared and forwarded to the United Kingdom for inclusion in an international publication on this subject.

A Second Report on the Entry of Students into Courses for the Pre-service Education of Teachers and into Other Types of Tertiary Education was prepared and will be included as an appendix to the final report of the Asche Committee.

In addition, a paper was prepared under the title 'The Transition from School to Work, to Further Training and to a Constructive Adult Life' for the conference on 'Youth, Employment, Education and Training' conducted in Canberra by The Academy of the Social Sciences in Australia and The Centre for Economic Policy Research at the Australian National University. This paper gave an account of the ACER's program of research and the findings from that research which were relevant to the issues raised at the conference.

Publications and Papers

Keeves, J.P. The transition from school to work, to further training and to a constructive adult life. In F. Gruen (Ed.), *Youth, Employment, Education and Training: Report of a Joint Conference held by The Academy of the Social Sciences in Australia and The Centre for Economic Policy Research, Australian National University.* Canberra: The Centre, 1981.

McKenzie, Phillip A. Unemployment and Recurrent Education: An Economic Perspective. Paper presented at the AARE Annual Conference, Sydney, November 1980.

Library

Margaret A. Findlay (Librarian), Christopher J. Cook, Elspeth Miller, Lula Psiliakos

(The library was funded in part from the Core Grant, but largely from ACER's income from sales.)

Library usage by staff has continued at a high level and, during the period under review, 6500 items were borrowed from the collection. A concentrated effort has been made during this period to ensure that the collection is relevant to the information needs of the present research staff. At June 1981, the overall collection had increased to 17 700 volumes with an average monthly growth of 90 titles.

Interlibrary co-operation continues to reflect the value of the collection in the field of education in Australia. During 1980 requests for interlibrary loans from other libraries totalled 1900.

Computerized information retrieval services have been used to supplement the detailed reference and information work performed by the library for the research staff of the ACER. Searches are processed through the bibliographic data bases in the Australian network AUSINET and the Lockheed Dialog network in USA by using the dial-up link and terminal recently acquired by the library.

PROGRAM OF SURVEY AND PSYCHOMETRIC SERVICES

Survey Research Services

Malcolm Rosier, Kenneth N. Ross, Stephen Farish, Mark Wilson

(This project was included in the ACER Core Program. Mr Farish and Mr Wilson were seconded from the Victorian Education Department.)

Advice and assistance in various aspects of survey research are provided by the unit to members of the staff and to certain research workers in other institutions. The unit also maintains the ACER Sampling Frame, which is a list of all primary and secondary schools in Australia with associated student enrolment figures.

Studies in Sample Design

These studies are investigating variance estimation techniques for a variety of complex sample designs and the statistics which are derived from such designs. The statistics under investigation are norm-referenced and criterion referenced reliability coefficients as used in educational and psychological testing situations and correlation and regression coefficients as used in multiple regression analyses.

The techniques which have been investigated as applicable to the sample designs and statistics are Balanced Repeated Replication, the Jackknife procedure and Taylor linearization. The use of a Jackknife estimate as the initial input to the Taylor linearization technique has also been studied. The results of these estimation procedures are being compared with actual empirically obtained values for variance.

Using computer software developed for the studies, much of the analysis has been carried out, with the collation and interpretation of results to be completed.

Publications and Papers

Rosier, M.J. The sampling design and execution. In G.W. Bassett, *Teachers in Australian Schools 1979*. Melbourne: Australian College of Education, 1980, Appendix 2.

Wilson, M. Adventures in Uncertainty: An Empirical Investigation of the Use of a Taylor's Series Approximation for the Assessment of Sampling Errors in Educational Research. Hawthorn, Victoria: ACER, 1981. (mimeo.)

Australian Educational Data Archives

Malcolm Rosier

(This project was included in the ACER Core Program.)

As indicated in the 1979–80 ACER *Annual Report*, a report was prepared describing the need for an adequate system for developing archives of data obtained in major Australian educational research studies. The justification for the system was seen to lie in the accountability of research workers for the public funds used in the collection of data, and in the reduction of requests to schools for the use of students in surveys.

It was proposed that a centre be established, with a minimal level of funding, to ensure that sets of data submitted to the archives system were well organized and accompanied by adequate documentation, and that regular catalogues should be prepared, for distribution to educational research workers in Australia and overseas, which described the nature and availability of the entries in the archives system. It was further proposed that a series of workshops be held in major cities in Australia in order to introduce the system to potential users, including those who would be submitting data to the system and those who would be using archived data for secondary analyses.

The report was submitted to various persons for advice and comment, and the response to the proposal for an Australian Data Archives System was very favourable. It was seen to be meeting a fundamental need of the research community. Preparations were therefore made for preparing a revised version of the report.

However, it was intended that the system would be supported during the next phase of development by the Education Research and Development Committee, which had initially provided a grant for an advisory committee to discuss the issues, under the chairmanship of Professor Jonathan Anderson of Flinders University. Because of the closure of the ERDC, no further action has been taken on the proposal for the establishment of the Australian Educational Data Archives System, which has meant that the final report has not been prepared and the proposed workshops have been cancelled.

ASAT Validation Studies

George Morgan

(This project was included in the ACER Core Program.)

This project aims to assess the psychometric properties of the Australian Scholastic Aptitude Test, and to provide advice on its use.

During the past year, the main concern of this project has been with the validity of the special ASAT tests as instruments for selecting mature-age entrants to tertiary courses. Comparisons have been made

between the performances of mature-age applicants and Year 12 students who make up the normal intake to tertiary courses. Various psychometric properties of the special ASAT forms have been estimated from composite test data of Year 12 students.

Studies in Criterion Referenced Measurement

George Morgan

(This project was included in the ACER Core Program.)

An on-going activity of this project is to keep the ACER abreast with important developments in the field of criterion referenced measurement and testing. Assistance was given to projects with the interpretation of criterion referenced test data.

A particular concern was to determine whether it is feasible to develop a statistical procedure which could be used to assess examinee performance over a period of time, that combined principles of decision theory and Rasch based latent trait measurement. Available results showed that such a procedure could be used to monitor performance levels of examinees at different times in the period, allowing current performance measures to be linked to measures of performance at earlier times, so that measures were directly comparable. This preliminary investigation is to form the basis of a more extensive study which will be reported upon at a later date.

An additional concern of this project was the preparation for publication, by the ACER, of the papers presented at the 1980 Invitational Seminar on the Improvement of Measurement in Education and Psychology. Under the editorship of Professor D. Spearritt, of Sydney University, the papers have been edited and collated for publication towards the end of 1981.

Statistical Analysis and Psychometric Services

Christopher J. Lokan (until 13 February 1981), Jeffery J. Clancy

(This project was included in the ACER Core Program.)

The ACER inhouse computer provides a facility for on-site data processing as well as a remote job entry system to the larger IBM/370 computer operated by ICI. During the year the system has been fully documented and existing statistical analysis programs have been updated. Several new routines, including a SORT procedure have been added to the system.

The on-site facility has been augmented by the installation of a terminal to the Swinburne College of Technology FACOM computer. Access to this system has substantially increased ACER's computing capability. Negotiations are now under way for a second line to the FACOM and for an eventual RJE link to that system.

PROGRAM OF ADVISORY SERVICES

Educational Advisory Services

Peter Jeffery, Barbara Johnson

(The cost of Advisory Services was met entirely from ACER's income from sales.)

Perhaps the most important aspect of the work in Educational Advisory Services is providing advice to enquiring teachers and other educational personnel. Much of this advice is provided in response to letters, telephone calls, and individuals visiting ACER. However, advisory staff are receiving increasing numbers of requests to run seminars and workshops for all teacher groups. Nine of these seminars were held in Victoria last year. One seminar, initiated by the ACER, was held in Sydney, and was most successful both in establishing contact with teacher centre personnel and in providing information about the ACER. It is evident that ACER's location in Melbourne is responsible to a large extent for the demand from Victoria. It could be assumed that a similar demand would come from other States if ACER's services were as well known as they are in Victoria. Plans are being made to hold seminars in other state capitals and some country areas, and it is hoped this will enable the ACER to increase advisory staff and teacher interaction.

One attempt to increase this interaction is through provision of special ACER displays to educational centres in different States. Displays have been prepared for NSW regional education centres, and great interest has been shown by these centres. Victoria and Queensland will receive displays in 1981–82. In addition, displays have been provided on request for a variety of educational meetings throughout Australia.

The revised *ACER Annotated Catalogue of Educational Tests and Materials*, which was published in June, has been improved to provide information on test selection, a glossary of terms used in the catalogue, and photographs of tests and materials. In addition, update mailings have been continued to current holders of the Annotated Catalogue.

The *ACER Newsletter* continues to create interest and its mailing list is increasing steadily. Items in the Newsletter stimulate many requests for Project News reports from people wishing to keep abreast with current projects.

Publications and Papers

ACER Newsletter No. 39, No. 40, No. 41.
ACER Annotated Catalogue of Educational Tests and Materials.
ACER Educational Catalogue.

Psychological Advisory Services

Diana M. Bradshaw, Josephine C. Jenkinson

(The cost of Advisory Services was met entirely from ACER's income from sales.)

During the year, there was a substantial rise in the number of telephone enquiries. This was probably due to some extent to the large increase in applicants for registration with the ACER as test users. The total number of applications processed during the year was 597 as compared with 417 for 1979–80.

An annotated bibliography of neuropsychological tests was updated to meet the growing demand for tests in what has become a rapidly expanding area. A new annotated bibliography of tests of social and vocational competence in special education, another rapidly expanding area of testing, was compiled to reduce the time involved in answering enquiries concerning such tests.

Two issues of the ACER *Bulletin for Psychologists* were prepared. The February 1981 issue gave prominence to tests published by the Psychological Corporation and the Institute for Personality and Ability Testing.

In addition to the routine activities concerned with advising on tests and their use, staff receive many enquiries from parents and members of the public concerning educational and psychological matters. In the apparent absence of other sources of information, many callers have been advised to ring the ACER. These calls would, on average, number 15 a week and people are referred by a large range of organizations and individuals. It would seem that the ACER is seen as a source of information on a wide variety of topics ranging from educational statistics to vocational guidance.

PUBLISHING

Don Maguire, Marcel Leman, Bronwyn Hay, Craig Dowsett

AUSTRALIAN EDUCATION REVIEW

During the past 12 months two issues of the *Australian Education Review* have been published and it is hoped during the coming years to ensure that the review is issued on a more regular basis using, in the main, contributions from persons outside the staff of the ACER.

Publications

Crittenden, Brian S. *Changing Ideas in Australian Education: Some Key Themes since 1960.* (Australian Education Review No. 14). Hawthorn, Victoria: ACER, 1981.

Karmel, Peter H. *Education into the Eighties: Some More Economic Aspects of Education.* (Australian Education Review No. 15). Hawthorn, Victoria: ACER, 1981.

AUSTRALIAN JOURNAL OF EDUCATION

After nearly 25 years during which the editoral responsibility of *The Australian Journal of Education* was held at the University of Sydney, first by Emeritus Professor W.F. Connell and more recently by Associate Professor R.L. Debus, the editorship of the Journal passed to Professor K. Marjoribanks of the University of Adelaide. The Council expresses its thanks to Professors Connell and Debus and their colleagues at the University of Sydney, in particular to Mrs Vija Sierins, for their notable contribution to Australian education through the preparation of the Journal.

The transfer of the production of *The Australian Journal of Education* to the ACER has been managed without the necessity for increases in staff. With the editor's full co-operation, a good working arrangement has been set up which has allowed the new format to be developed, and it is anticipated that these procedures will result in speedy and efficient production of future numbers of the Journal.

PUBLISHING ACTIVITIES

The first full application of the system of direct transfer from word processor disk to typesetting was used for the production of ACER's history, *The Australian Council for Educational Research 1930–80* by W.F.

Connell. Publication was completed within six weeks of the receipt of the final manuscript. This was in good time for the presentation to the President at the ceremony held to celebrate ACER's 50th anniversary. The system has since been used in other publications such as *Education, Change and Society* edited by Peter Karmel and *Becoming Better Parents* by Maurice Balson. The latter titles illustrate the flexibility required of both the typesetting system and the design requirements of the Division. A good deal of effort is expended in fitting the design to the ultimate use of the publication.

At the request of the library, the layout of the *Australian Education Index* was redesigned to allow a more economical use of space for computer typesetting transfer. This has gone some way to compensate for the large increase in the number of items being indexed.

The Division has been required to design and produce more advertising literature this year. An example is that for *Becoming Better Parents*. As this title was aimed primarily at the bookshop market, a different promotional approach was arranged. This required production of full-colour posters and brochures and the provision of display bins.

Books, Reports, and Periodicals Published

(a) Books and Reports

Changes in Secondary School Mathematics in Australia 1964–1978 by Malcolm J. Rosier (ACER Research Monograph No. 8).

Oracy in Australian Schools by S.F. Bourke, M.L. Clark, D.F. Davis, and F. Holzer (ACER Research Monograph No. 9) including Appendixes on microfiche.

School and Work in Prospect: 14-year-olds in Australia by Trevor Williams, Margaret Batten, Sue Girling-Butcher and Jeff Clancy (ACER Research Monograph No. 10).

Education and Employment: Expectations and Experiences of Students, Graduates, and Employers by Warren Jones (ACER Research Monograph No. 11).

The Evaluation of Staff Development in TAFE: A Summary of the Reports by Adrian Fordham and John Ainley.

Mathematics Evaluation Procedures K–2 (for use by teachers with children in Years K–4) by North Sydney Infants' Mistresses' Council.

The Australian Council for Educational Research 1930–80 by W.F. Connell.

Becoming Better Parents by Maurice Balson.

Education, Change and Society edited by Peter Karmel.

(b) Periodicals

ACER Newsletter edited by Peter Jeffery.
No. 39 July 1980, No. 40 November 1980, No. 41 April 1981.

Australian Education Index compiled by Margaret A. Findlay and Elspeth Miller.
Vol. 22 No. 2 June 1980, Vol. 22 No. 3 September 1980, Vol. 22 Cumulation 1980, Vol. 23 No. 1 March 1981, Vol. 23 No. 2 June 1981.

Bulletin for Psychologists edited by Diana Bradshaw.

No. 28 August 1980, No. 29 February 1981.

Australian Education Review

No. 14, Changing Ideas in Australian Education: Some Key Themes since 1960 by Brian Crittenden.

No. 15, *Education in the Eighties: Some More Economic Aspects of Education* by Peter Karmel.

Australian Journal of Education edited by Kevin Marjoribanks

Vol. 24, No. 2 August 1980, Vol. 24, No. 3 October 1980, Vol. 25 No. 1 April 1981.

State Institute News

No. 1 July 1980, No. 2 November 1980, No. 3 April 1981.

(c) Advisory Services Publications

ACER Educational Catalogue 1981 and Price List.
ACER Psychological Catalogue 1981.
ACER Annotated Catalogue of Educational Tests and Materials 1981.
ACER Personnel Catalogue 1981.
Annotated Booklist.

Tests Published

(a) Testing Services

Co-operative Scholarship Testing Program. Candidates Registration Form, Candidates Information Bulletin, List of Centres, Tests: Written Expression, Levels 1 and 2; Mathematics, Level 1; Mathematics and Science, Level 2, Answer Booklet, Levels 1 and 2.

Australian Scholastic Aptitude Test Series J. Book I, Book II, and WA version. Photographic masters forwarded to States for publishing.

Australian Law Schools Entrance Test Series C. Test Booklet and Answer Sheet.

(b) Diagnostic Tests, Achievement Tests, and Teaching Aids

Progressive Achievement Tests (NSW) Score Key for Machine Scorable Answer Sheet for Reading Comprehension and Reading Vocabulary Tests, Forms A and B and Supplement to Handbook.

ACER Chemistry Test Item Collection (CHEMTIC) Year 12 Supplement.

Program for Assessing Youth Employment Skills (PAYES) (Australian Experimental Edition) Booklets I, II and III, Manual, Directions for Administration, Scoring and Individual Profile Booklet.

Revised Minnesota Paper Form Board Test: Manual. (Revised edition).

Reprints

There were 255 separate reprints during the year, including *Philanthropic Trusts in Australia* (Third edition).

DISTRIBUTION SERVICES

Eric McIlroy, Alan Wilkins

The financial year 1980–81 was one of many anxieties and uncertainties, and only in the closing weeks of this period was it clear that a satisfactory level of trading would be maintained. However, the delay in receipt of copies of *set* and other items from overseas as a consequence of industrial troubles on the Victorian wharves resulted in a substantial shortfall in the value of goods supplied, in spite of the fact that, for many items, orders were held at the close of the financial year.

Mr Eric McIlroy tendered his resignation as officer in charge of the Distribution Services Division from 3 July 1981 after nearly 19 years of service with the ACER. During that period Mr McIlroy saw the Division grow quickly through the easy years of the agency for Science Research Associates to the years when the ACER produced curriculum materials for the school market to the current period of financial constraints. The Council is grateful to him for a long period of loyal service and for the careful and accurate manner in which he supervised the affairs of the Division. In retirement Mr McIlroy will be undertaking part-time employment and the ACER wishes him every success in his new position. The ACER has been fortunate to have recruited to the staff Mr Ian Horton from a similar position with the Victorian Commercial Teachers Association.

FINANCE

The grants received from the Commonwealth and State Governments amounted to a combined total of $638 000. While this sum represented an increase above the level of the previous year, it was significantly less than the level of inflation that had operated during the 1979–80 financial year and made no allowance for the substantial increases in the salaries of all staff that have occurred in the current financial year. As a consequence it has been necessary to reduce the number of staff employed under the core grant and thus the program of work being undertaken from this source of funds. The coming financial year is viewed with considerable uncertainty.

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Contributions to Council Funds

The Council acknowledges, with thanks, the following contributions received during the financial year ending 30 June 1981:

Australian Governments: General Grants for Research

Commonwealth	$319 000
New South Wales	$114 330
Victoria	$ 87 151
Queensland	$ 47 650
South Australia	$ 29 348
Western Australia	$ 27 211
Tasmania	$ 9 474
Northern Territory	$ 2 360

Special Grants

Grants to specific projects were made by:

Members of the Association of Australian Philanthropic Trusts	$ 1 500
Australian National University	$ 4 000
Curriculum Development Centre	$ 10 638
Education Research and Development Committee	$ 35 766
Education Department, Victoria	$ 31 500
University of Melbourne Conservatorium	$ 434
University of Queensland	$ 3 000
and from the State Education Departments through the Australian Education Council	$170 449

ACER Staff

(As at 1 July 1981)

DIRECTOR

John P. Keeves, BSc, DipEd, MEd, PhD, fil dr, FACE, FASSA

ASSISTANT DIRECTORS

John F. Izard, TPTC, BSc, MEd, PhD, MACE
Trevor H. Williams, BSc, DipEd, BA, MA, PhD, MACE

RESEARCH AND DEVELOPMENT

John G. Ainley, BSc, MEd, PhD, MACE, ARACI
Margaret C. Batten, BA, BEd, MACE
Bettina Blackall, TPTC, BA, DipEd, MEd, PhD, ALAA (honorary member of staff)
Sidney F. Bourke, BSc, BA, LittB, MEd, MACE
Jeffery J. Clancy, BA
*Chris Commons, BSc, PhD, DipEd
*Douglas T. Couper, BSc(Ed), BSc(Hons)
Marion M. de Lemos, BSc(Hons), MSc, PhD, MAPsS
*Meredith Doig, BA, DipEd
*Stephen Farish, BSc(Hons), DipEd
Sue Girling-Butcher, BA, DipMedTech
Allyson Holbrook, BEc, DipEd
Faye Holzer, TSTC, BA, BEd
*Lesley Howard, BA, DipEd
Warren Jones, BSc(Hons), PhD, MAPsS
Janice J. Lokan, BA, DipEd, PhD, MAPsS, MIAAP
Noel McBean, BA, DipEd (part-time)
Phillip A. McKenzie, BEc(Hons), DipEd, MEd
John M. Mills, BA(Hons), DipEd, MEd
George Morgan, BSc(Hons), DipEd, MSc, MEd
Kevin J. Piper, BA(Hons), DipEd
Malcolm J. Rosier, BSc, MEd, PhD
Kenneth N. Ross, BSc, MEd
Helga A.H. Rowe, BA(Hons), PhD, MAPsS, MIAAP
Robin G. Rowlands, BA, MEd, PhD, FACE (honorary member of staff)
Meredith Shears, BA(Hons), DipEd
Jenny Slater, BA, Grad Dip Sec Studs (part-time)
*Jackie Stanyon, BA(Hons), DipEd
Andrew Sturman, BSc(Hons)
A. Graham Ward, MA, MEd

*Lee Waddell, BA, MA, Teaching Credential
Evelyn Watson, BA
*Mark Wilson, BSc(Hons), DipEd
Graeme P. Withers, BA, ACTT

* Seconded staff from the Victorian Education Department

ADVISORY SERVICES

Educational

Peter Jeffery, TPTC, BA, BEd
Barbara Johnson, BA, DipEd, MEd

Psychological

Diana M. Bradshaw, BA, DipEd, MAPsS
Josephine C. Jenkinson, BA, DipEdPsych, MEd, MAPsS

Test Library and Reference Materials

Pamela Burns (part-time)

LIBRARY

Margaret A. Findlay, BA, ALAA
Christopher J. Cook, BA(Hons), ALAA
Elspeth Miller, BA(Hons), GradDipLib
Lula Psiliakos, ALAA (part-time)
Betty J. Segar (part-time)

PUBLISHING

Don Maguire, HNC
Craig Dowsett, Cert App Art
Bronwyn Hay, BA(Hons) (part-time)
Marcel Leman

ACCOUNTANCY

Phyllis M. Staurenghi, BA, BCom
Ruth Ambrose
Marie Crisp
Fay Harvey
May Young
Margaret Palmer

SALES AND DISTRIBUTION

Eric McIlroy
Alan Wilkins
Peg Engellenner (part-time)
Bruce Fulton
Peter Gale
Stan Gale

Jan Gilbert
Judy Gilder
Peter Gilder
Jill Harding
Isabel Miller
Steve O'Neill
Maisie Peel
John Wilson

SECRETARIES TO THE DIRECTORS

Marjorie Balloch
Win Boyce
Margaret Taylor
Yvonne Allen (part-time)

GENERAL SECRETARIAL AND OFFICE SERVICES

Jean Ramus (part-time)
Carolyn Bretherton
Judith Clark
Merrille Corless (part-time)
Gwenneth Dobell (part-time)
Susan Leith
Gloria Locock
Margaret Miller
Linda Schmidt (part-time)
Beatrice Sciberras
Carol Shackleton (part-time)

CLERICAL AND TECHNICAL ASSISTANTS

Ruth Jeffery
Anne Lowry

State Institutes of Educational Research

Nature and Function

The State Institutes are autonomous bodies, each nominating one representative to the governing body of The Australian Council for Educational Research, and co-operating closely with it when occasion requires. In 1956, at a meeting held in Melbourne, these representatives formulated the following statement of the nature and functions of an Institute. In general, as the reports printed later will show, they carry out the functions in different ways and with different emphases.

The object of the Institute is to act as a learned body devoted to the promotion of study and research in education, emphasizing the scientific study of educational problems, by means of the following activities:

A Disseminating
- (i) research, either
  - (a) the results of specific pieces of research done by members; or
  - (b) reports on the collection of research information;
- (ii) opinion and accounts of practices in education.

B Participating in
- (i) the discussion, planning, and criticism of research projects;
- (ii) the active carrying out of research projects.

C Establishing areas of contact with other educational groups.

Membership on Council of ACER

The term of office of an Institute representative on the Council of the ACER is four years, and the dates of appointment are arranged to provide a continuity of membership of the Council.

NEW SOUTH WALES

Office Bearers

Patron: Sir Harold Wyndham
President: Mr R. Catts
Vice-Presidents: Dr J. Harvey, Dr L. Higgins, Dr I. Smith
Secretary: Mr I. Burnard
Treasurer: Dr B. Southwell
Library-Research Officer: Mr R. Philps
Delegate to ACER: Professor J. Keats
Alternative Delegate and Editor of The Australian Journal of Education (1980): Associate Professor R. Debus
Advisory Editor of The Australian Journal of Education: Dr J. Sheppard
Additional Committee Members: Associate Professor N. Baumgart, Mr A. Watson, Mr J. Shellard
Co-opted Committee Members: Dr J. Barrett, Ms J. Cust, Ms S. Groundwater-Smith, Ms G. Macleod, Mr J. Relich

Meetings

The theme adopted for the year was 'Confronting critical issues in educational research'.

6 March 1981. Dr M. Skilbeck, Curriculum Development Centre, Canberra, 'Core curriculum: Implications for curriculum development'

3 April 1981. Dinner meeting, Macquarie University, followed by a panel discussion and product display of research. Discussion questions: Is there a moral dilemma for educational researchers between relevance and reputation? Does educational research ever do more than rationalize the status quo? Do data collection methods influence findings? Does good technology drive out bad theory? Panel and interviewers: Dr J. Barrett (Assistant Chairman), Associate Professor N. Baumgart (Chairman), Dr D. Cohen, Dr D. Davis, Professor P. Foster, Mr K. Johnston, Dr D. Lewis, Dr G. O'Byrne, Professor H. Philp, Dr M. Tenezakis, Professor J. Ward

20–21 May 1981. Joint-sponsored conference initiated by the Curriculum Research and Development Centre, University of Sydney: The Nature and Implications of the Document, *Core Curriculum for Australian Schools*

18 June 1981. Professor Kung Wei-Yao, Institute of Psychology, Peking, 'General education in China: A comparison of what was, what is and current directions'

Membership

Membership, excluding membership through the Newcastle Branch whose report is submitted separately, is 130 of whom 113 are currently financial members.

Publication

During the year the Editor of the *Bulletin* published the address of Dr Malcolm Skilbeck. This will appear again the 1981 *Bulletin*. The 1980 edition is expected to be ready by November 1981.

Newcastle Branch

During the year the Executive, together with members meeting on 18 June, agreed to support the proposal of the Newcastle Branch to receive separate representation upon the ACER Council.

Annual Prize

During the year considerable planning has taken place to increase the range of tertiary institutions in NSW whose education students might become eligible for an educational research prize. It is expected new arrangements will apply in 1982. Prize winners for the 1980 academic year were:
Kathleen E. Cook, Macquarie University
Michael R. Matthews and Adriene L. Wainwright, University of New South Wales
Susan C. Funnell, University of Sydney

Education Research Funding

The Institute expressed to the Commonwealth Minister for Education its concern at the dissolution of ERDC and other national education research funding instrumentalities. Discussion has taken place on these matters with federal political leaders.

Acknowledgments

The Institute is grateful for the support of Mr K. Reinhard, Acting Principal, Alexander Mackie College of Advanced Education and to its other supporters for their assistance in making possible the activities of the Institute during the year.

Financial Statement

The financial statement shows a credit balance of $320 for the year ended 10 September 1981.

NEWCASTLE BRANCH

Office Bearers

Chairman: Mr T. Nicholas
Vice-Chairmen: Dr E. Braggett, Professor J. Biggs
Honorary Secretary: Mr W. Howard
Committee Members: Dr R. Rowe, Dr J. Miles, Mr J. Foster
Delegate to ACER: Professor J. Keats

Meetings

10 April 1981. Combined meeting with the Australian College of Education and Educational Administration. Dr R. Rawlinson, 'The structure and work of the Education Commission of NSW'
28 May 1981. Professor J. Biggs, 'A survey of tertiary student motives and study strategies: A comparison of the Hunter Valley with Australian norms'
16 June 1981. Professor Kung Wei Yao, 'The development of education in China'

Membership

Currently there are 36 members of the Newcastle Branch, 27 of whom are financial and nine are either on leave or are yet to renew their membership.

Financial Statement

The Newcastle Branch had a credit balance of $740.10 on 1 September 1981.

VICTORIA

Office Bearers

President: Dr L.W. Shears
Vice-President: Dr G.J. Allen, Ms I. Palmer
Honorary Secretary: Mr A.J.P. Nattrass
Honorary Assistant Secretary and Membership Officer: Mr K. Hall
Honorary Treasurer: Mr F. Hindley
Committee: Mrs M. Ainley, Mr M.W. Boyce, Mr G.D. Bradshaw, Mr H. Hobbs, Ms A.M. Ridsdale, Dr R. Rowlands, Dr G.J. Whitehead
Editor of Publications: Mr M.W. Boyce
PET Group Representative: Mr T. Holland
Research Group Representative: Mr I.L. Ball
Honorary Auditor: Dr G.J. Allen

Meetings

27 August 1980. Twenty-seventh Frank Tate Memorial Lecture. Professor A.H. Halsey, University of Oxford, 'Meritocracy and secondary education—The case of twentieth century Britain'
28-30 October 1980. Eighteenth Lecture Series. Mr P. Ruthven, Dr L.W. Shears, Mrs T. Gray, and Mr G. Cooper, 'Teaching in the eighties—Go or woe?'
13 March 1981. Annual Meeting. Mr S.F. Bourke and Ms F. Holzer, 'A report of the development of oracy in Australian schools'
23 June 1981. Twenty-eighth Frank Tate Memorial Lecture. Emeritus Professor R. Selby Smith, 'The non-government schools: Today and tomorrow'

Publications

Two issues of the *VIER Bulletin*, Numbers 45 and 46, were produced containing texts of major VIER lectures as well as other papers and reviews.

Research Group

The major project of this group was the establishment of two special working parties, chaired by Mr D. Fraser and Dr J. Lawrey, with a view to contributing to the ACER's Invitational Conference on Societal Change and its Impact on Education.

Primary Education Today Group

This numerically strong group continued its series of monthly meetings and was responsible for the organization of the Annual Lecture Series.

G.S. Browne Prizes

Arrangements were made for the G.S. Browne Prize for Educational Practice, instituted in 1957, to be awarded in conjunction with the Teacher of the Year Award which is sponsored by *The Age*, and organized by the Education Department of Victoria with the co-

operation of the Catholic Education Office and the Association of Independent Schools. The award was made to Mrs M. Kocher for her outstanding contribution to multicultural education.

Fiftieth Anniversary Dinner

A dinner to celebrate the fiftieth anniversary of the Institute was held on Tuesday 18 November, 1980 at Union House, University of Melbourne. Thirty-nine persons attended, including many who had been members of the VIER Executive over the 50 years of the Institute's existence. Professor W.F. Connell delivered the after dinner address and in doing so gave all present a challenge to examine further the role and function of the Institute.

QUEENSLAND

Office Bearers

Patron: Mr W. Wood
President: Mr P. Varley
Vice-Presidents: Miss J. Bedford, Dr J. Cotterell, Mr P. Mascoll
Honorary Secretary: Mrs D. Muir
Honorary Treasurer: Mr R. Skidmore
Executive: Mr N. Alford, Mr C. Fowler, Dr E. Hobbs, Mr R. Warry, Professor B.H. Watts (immediate Past President)
Representative to ACER: Mr N. Alford
Advisory Editor of The Australian Journal of Education: Mr R. Warry
Honorary Auditor: Dr L. Miller

Meetings

The QIER has taken 'School-based evaluation' as its theme for 1981.
4 March 1981. Public lecture. Mr R. Sadler, University of Queensland, 'School-based education: Evaluation activities'
16 June 1981. Free lecture/workshop. Dr S. Kemmis. 'School-based evaluation'

Publications

Three issues of the *QIER Journal* were published in 1980. The first issue of the 1981 Journal has been published and the second is underway. Miss J. Bedford resigned as editor this year to be replaced by Mr C. Fowler. Miss Bedford had proved herself to be a most competent editor and it was with regret that the Executive accepted her resignation.

The *History of the Queensland Institute for Educational Research—The First 50 Years* was published this year. Mr N. Anderson, an active member of the QIER for a considerable number of years, prepared the history to mark the 50th anniversary of the QIER. It serves as both a synopsis of the activities undertaken and as a means of paying tribute to contributions of people associated with the Institute during its first 50 years.

Financial Statement

The total funds held on 1 January 1981 were $701.12 and the surplus for the year was $331.34. The 1980 increase in membership fees to $7 per year put the financial status of the QIER back on a firm basis and no further increase was seen as necessary in 1981.

SOUTH AUSTRALIA

Office Bearers

President: Dr B.J. Webber
Vice-President: Dr A.J. Shinkfield, Dr D.K. Briggs
Secretary: Dr E.R. Sandercock
Tresurer: Mr D. Dent
Committee Members: Dr J. Langrehr, Ms M. Parslow, Mr D.H. Kuhl, Ms J. Keightley
Representative to ACER: Dr B.J. Webber

Meetings

3 March 1981. Annual General Meeting. Joint meeting with the South Australian Institute of Teachers. Professor K.B. Start, Faculty of Education, University of Melbourne. 'Some perspectives on national and state testing of student performance and achievement'
28 April 1981. This meeting, and Professor Stufflebeam's visit to South Australia, were sponsored by the tertiary education institutions of South Australia. Professor D Stufflebeam, Western Michigan University, 'Perspectives in educational evaluation'
16 June 1981. Mr B. Stanton, Mr J. Emmel, and Mr W. Coonan, Physical Education Branch, Education Department of South Australia, 'Developing and evaluating physical education in primary schools'

Membership

There has been a stronger drive this year to increase membership, supported by the reduced subscriptions to members of SAIER for both *set* and *The Australian Journal of Education*. Membership currently stands at 83, a strong improvement compared with membership from the last two years.

Financial Statement

At 28 July 1981, the General Account stood at $514.71, the Special Account, $58.04, and Deposit Stock, $1000.00.

Classroom Research

The South Australian Institute of Educational Research offers limited financial assistance (of the order of $100) for classroom research. Two projects, one from Keller Road Primary School and the other from Elizabeth Park Speech and Hearing Centre were funded in 1980. Both projects sought the funding for the publishing and distribution of the evaluations of their respective projects. One report entitled *A Study in Speech Reading and Auditory Perception and their Related Overtones on Speech Intelligibility of Hearing-impaired Children* has been received; the other from the Keller Road Primary School has been published, but a copy has yet to be received.

A submission was received from Karcultaby Area School for support of their evaluation of a Year 8—10 science course. $100 has been

allocated to this project. Two further submissions are before the Committee.

With the restrictions of funding from government sources, there seems to be little access to funding for projects of this type and we have had a larger number of enquiries than in previous years.

Letters of Support

In April, when a stalemate had been reached during the industrial dispute between the Government of South Australia and the SAIT, letters were sent to both parties urging continuing negotiation and offering assistance for this to happen. The letters were cojointly signed by the Presidents of SAIER, South Australian Institute for Educational Administration, and the Australian Council for Educational Administration.

In July it was resolved to send a letter of support for the WAIER submission to the Hon. Wal Fife, MP, Minister for Education, seeking sustained funding for educational research at a national level.

WESTERN AUSTRALIA

Office Bearers

Patron: Dr D. Mossenson
President: Dr M.L. Clark
Vice-President: Dr A. Ryan
Immediate Past President: Mr M. Angus
Secretary/Treasurer: Mr J. Oliver
Committee Members: Dr M. Lee, Dr P. Porter, Mr D. Tomlinson, Dr R. Underwood, Mr J. Williamson

Meetings

5 March 1981. Annual General Meeting
28 May 1981. Panel: Mr M. Angus, Professor B. McGaw, Mr D. Tomlinson, Mr M. Cross, Dr M. Clark, 'Issues on funding educational research: The razor's edge'

Membership

In 1981, there are 63 financial members and 8 honorary members.

Prizes

Mr D. Carr, Murdoch University
Mrs P. Lawley, Nedlands College of Advanced Education
Miss C. Nelson, Churchlands College
Miss Y. Passchier, Claremont Teachers College
Miss C. Patterson, WA Institute of Technology
Miss M. Volaric, Mt Lawley College of Advanced Education
Mr R.E. Waugh, University of Western Australia

Financial Statement

The Institute has a credit balance of $1474.00.

TASMANIA

Office Bearers

Chairman: Professor P. Hughes
Secretary/Treasurer: Mr R. Cooper
Committee Members: Mr N. Behrens, Mr W. Ransley, Mrs H. Hocking, Mr M. Webberley, Mr M. Freestone, Dr B. Caldwell

Meetings

A meeting was held at the Southern Teachers Centre on June 26th, 1981 to reconstitute the Tasmanian Institute of Educational Research. Thirty-eight people attended the meeting and indicated their intention to take part in the Institute and a further 12 people wrote to apologize and indicate their interest. There was considerable discussion on the functions of TIER and the relationships with other organizations. It was indicated that the Institute would work in close co-operation with the Australian Council for Educational Research. A message from the Director of the ACER, Dr John Keeves, was read and the meeting expressed appreciation for the support of the ACER. It was formally agreed to reconstitute the Institute.

The functions of the Institute will centre on the discussion and study of issues in educational research, with special emphasis on the following aspects:

1 the identification of research issues of importance in education;
2 the study of research methods and approaches, and their ethical and technical implications;
3 the consideration of the implications of the findings of research for policy and practice, and
4 the dissemination of research findings together with discussion on their applicability to educational problems.

The meeting elected a Committee pro tem. In addition to its own meetings the Institute plans to publicize other relevant meetings such as the university seminars and special activities of the Research Branch and Curriculum Branch of the Education Department. The intention is to supplement and support the activities of the other educational bodies rather than to compete with them.

NORTHERN TERRITORY

Office Bearers

Patron: Dr J. Eedle
President: Dr N. Bowman
Vice-Presidents: Mr J. Nichterlein, Mr P. Meere (1980), Dr G. Durling (1981)
Secretary: Ms S. Butcher
Treasurer: Mr M. Hurnell
Representative to ACER: Dr N. Bowman
Committee Members: Mr P. Spinks, Ms L. Richardson, Mr G. Spring, Ms B. Hulme (1981)
Corresponding Members of set Committee: Mr R. Bucknall, Ms B. Hulme
Corresponding Members for The Australian Journal of Education: Mr J. Nichterlein, Ms G. Durling

Meetings

The NTIER was accepted as a member organization of the Professional Centre of the Northern Territory in January 1981. Mr M. Hurnell represented the Institute at the annual general meeting of the Centre held on 27 February 1981

27 June 1980. Interest meeting. 'The formation of an Institute of Educational Research'

13 August 1980. Inaugural meeting. Dr J. Eedle, 'The proposed NT University'

24 September 1980. First general meeting. Mr S. Saville, 'Administration and education'

26 November 1980. Mr P. Meere, 'The process of becoming a teacher' and Dr N. Bowman, 'Some comments on the state of educational research'

16 February 1981. Meeting jointly hosted with the Australian College of Education. Mr S.S. Dunn, Chairman of ERDC, 'Significant issues in Australian education—current and future'

5 May 1981. Mr H. Macintosh, Secretary of the Southern Regional Examinations Board, UK, 'Testing for mastery'

Tapes of the addresses given by Mr Saville, Mr Dunn, and Mr Macintosh have been distributed to country members.

A tape of an address given by Dr M. Skilbeck to the NSWIER entitled 'Core curriculum: Implications for curriculum development' has been obtained and made available for borrowing by members of the NTIER.

Membership

The Institute has 76 financial members: 52 local members and 24 country members.